ANNUAL CALENDAR

OF

McGILL COLLEGE

AND

UNIVERSITY

MONTREAL



SESSION 1910-1911.

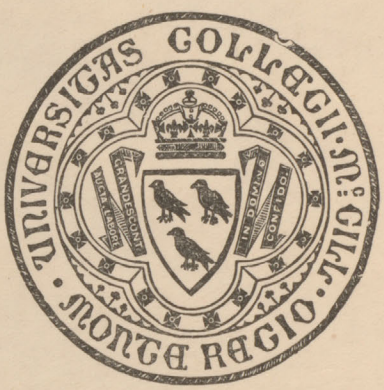
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ANNUAL CALENDAR

OF

McGILL COLLEGE

AND

UNIVERSITY

MONTREAL.

FOUNDED UNDER BEQUEST OF THE HON. JAMES McGILL,
ERECTED INTO A UNIVERSITY BY ROYAL CHARTER
IN 1821, AND RE-ORGANIZED BY AN
AMENDED CHARTER IN 1852.

SESSION 1910-1911

Montreal:

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The *Register of Graduates*, corrected to September, 1910, is published separately. Copies can be obtained on application to the Registrar.

INDEX.

	Page.
Academic Board	xviii, 4
Academic Year	15
Academic Dress	93
Admission	17
Of Partial Students in Arts	13
Of Students of other Universities	42
To Advanced Standing	42
To Practise Dentistry	338
To the Bar	296
To the Study of Medicine	300
Advanced Courses in Arts	97
Advanced Courses in Medicine	331
Advanced Exhibitions, Faculty of Arts	50
Advisory Committee, Faculty of Law	284
" " Faculty of Arts	96, 99
Affiliated Colleges	5, 6
Affiliation to Oxford, Cambridge, and Dublin	6
Age for Admission	14
Agency and Partnership	288
Agriculture, Faculty of	10, 380
Algebra for Matriculation	32
Course in (Arts)	155
(Applied Science)	250
Analytical Geometry	156, 250
Anatomical Museum	360
Anatomy. Course in	307
Anglo-Saxon, Courses in	126
Annie McIntosh Prize	62
Announcements:	
Faculty of Applied Science	186
Faculty of Arts	95
Faculty of Law	282
Faculty of Medicine	299
Faculty of Agriculture	380
Graduate School	369
Macdonald College	380
McGill University College of British Columbia	421
Royal Victoria College for Women	374
School for Teachers	411
University Library	364
Appeals in Matriculation Examination	19
Applied Mechanics, Courses in	234
Applied Science, Faculty of	9, 186
Committees in	186
Courses of Lectures in:—	
Architecture	221
Chemistry	231
Civil Engineering and Applied Mechanics	234
Descriptive Geometry	241
Electrical Engineering	242
English Composition	245
Freehand Drawing and Lettering	245
Geology and Mineralogy	246
Law and Economics	248
Mathematics	249
Mechanical Engineering	251
Metallurgy and Metallurgical Engineering	260
Mineralogy	246

126370

	PAGE.
Mining Engineering	264
Physics, Experimental	270
Railways	276
Shopwork	259
Surveying and Geodesy	273
Entrance Examination in	23
Examination Regulations	188
Outline of Courses in :—	
Architecture	193
Chemical Engineering	199
Chemistry	197
Civil Engineering	201
Electrical Engineering	203
Mechanical Engineering	206
Metallurgical Engineering	210
Metallurgy	213
Mining Engineering	215
Railways	218
Summer Work in	190
Arabic, Courses in	138
Aramaic, Courses in	138
Architecture :—	
Course in	10, 193
Subject of	221
Arithmetic for Matriculation	28
Arts, Faculty of	8, 95
Course for B. A	8, 96
For B. Sc. (in Arts)	8, 106
Courses of Lectures in :—	
Algebra	155
Anglo-Saxon	126
Arabic	138
Aramaic and Syriac	138
Astronomy	156
Biology	167, 172
Botany	167
Calculus	156
Chemistry	161
Classics	115
Comparative Literature	128
Comparative Philology	121
Constitutional Law	154
Dynamics	156
Economics	151
Ecology	170
Education	153
English	122
Experimental Physics	159
Forestry	171
French	129
Geology	163
Geometry	155
German	133
Greek	115
Hebrew	138
History	148
Hydrostatics	156
Italian	135
Latin	118
Logic	143
Mathematics	155
Mechanics	158
Mental Philosophy	143
Metaphysics	143
Meteorology	175

	Page
Middle English	126
Mineral Analysis	163
Mineralogy	163
Modern Languages	129
Moeso-Gothic	127
Moral Philosophy	143
Palaeontology	165
Pedagogy	153
Petrography	165
Philosophy	142
Physics	157
Physiography	163, 165
Political Economy	151
Political Science	152
Psychology	143
Roman Law	155
Sanskrit	120
Semitic Languages	136
Spanish	136
Statics	156
Trigonometry	155
Zoology	172
Diploma of Commerce	176
Double Courses	111
Examination for Entrance	20
Honour Courses in	100
Assaying, Courses in	260
Laboratories	346
Associations, see Societies.	
Astronomical Observatory	342, 350
Astronomy, Courses in	156
Athletics	88
Athletics Committee of Corporation	xxi, 88
Athletic Association, University	90
Attendance, Rules regarding	43
B.A. Degree, Regulations	8, 95
Course for	96
Examinations for	109
Exemptions for Professional Students	111
Honour Courses for	100
B. A. and B. C. L	113
B. A. and B. Sc	111
B. A. and M. D	112
Bachelor of Music	180
Bacteriology	316
Bar Regulations, Province of Quebec	296
B. Arch. Degree, Regulations	10, 193
B.C.L. Degree, Regulations	9, 283
B. Sc. and M. D	112
B.Sc. Degree, Course for in Faculty of Arts	8, 106
In Faculty of Applied Science	9, 187
Biology, Courses in	167, 172, 314
Board of Governors	xvi
Their Powers	3
Board and Residence	45
In Royal Victoria College for Women	45, 376
Book Club, McGill College	367
Book Club, The University	368
Botanical Laboratories	346
Botany:—	
Courses in (Arts)	167
For Matriculation	41
British Columbia, McGill University College of	421
British School of Classical Studies, Athens	117

	PAGE
British School of Classical Studies, Rome	120
Buildings	340
Calculus	156, 250
Calendar of Meetings, etc	xxxvi
Cambridge University, Affiliation to	6
Canadian Society of Civil Engineers	189
Canadian Mining Institute	189
Carpenter Shop Instruction	252
Caution Money	74-79
Cement Laboratory	346
Centre Building	340
Certificates Accepted for Matriculation	19
In Applied Science	68
In Arts	69
Of Standing	68, 69
Of Literate in Arts	8, 113
Matriculation	72
Chancellor, The	xvi, 3
Charter, The	3
Chemical Engineering, Outline of Course in	199
Chemistry Building, The Macdonald	340
Chemistry :—	
Course in (Applied Science)	197
For Matriculation	41
Subject of (Arts)	161
(Applied Science)	231
Medicine	308
Laboratories	347
Civil Engineers, Canadian Society of	189
Civil Engineering :—	
Course in	201
Subject of	234
Civil Procedure, Courses in	290
Classics, Courses in	115
Classification of Students	13
Clinical Instruction in Medicine	335
Clinical Medicine	321
Clinical Microscopy	328
Clinical Surgery	324
Clubs, see Societies.	
Colleges, Affiliated	5, 421
College Grounds, Management of	88
Colleges, Incorporated	5
Commerce, Diploma of	10, 21, 176
Commercial Course	176
Commercial Law, Courses in	289, 290
Committee for Grounds	88
Committees of Governors and Corporation	xix
Committees in Applied Science	186
Companies, Courses in Law of	289
Comparative Literature	128
Comparative Philology	121
Composition, English	122, 245
Conditioned Students	13
Conduct of Students	87
Congregational College	6
Conservatorium of Music	8, 179, 341
Constitution of the University	3
Constitutional History, Courses in	150
Constitutional Law, Courses in	154, 287
Corporation, The	xvi, 3
Corporations, Courses in Law of,	289
Coster Memorial Prize	61
Courses for B.A., B.Arch., B.C.L., B.Sc., M.D. and D.D.S., length of	8-10

PAGE

Course for Diploma of Commerce 176
Courses of Lectures :—
In Applied Science 221
In Arts 115
In Law 286
In Medicine 306
Course of Study for D.D.S 339
Criminal Law, Courses in 289

Dates for Session 1910-1911 15
D. C. L. Degree, Requirements for 84, 293
D. D. S. Degree, Requirements for 10, 81, 339
D.Litt. Degree, Requirements for 83
D.Sc. Degree, Requirements for 83
Degrees granted by the University 12
Degrees in Applied Science 187
Degrees, Statutes concerning 81
Ad. Eundem 85
In Music 180
Length of Courses for B.A., B.Arch., B.C.L., B.Sc., M D. and D.D.S 8-10
Requirements for M. D., C. M 301
For Ph.D 83, 372
Dental Department, Faculty of Medicine 338
Dentistry, Course in 338
Dermatology 329
Descriptive Geometry, Course in 241
Differential Equations 156
Diocesan College 6
Diploma of Commerce 10, 21, 176
Diploma of Licentiate in Music 179
Diploma of Public Health 332
Discipline 87
Diseases of Infants 325, 328
Doctor of Music 182
Doctor of Philosophy, course for 372
Double Courses :—
Arts and Applied Science 111
" " Law 113
" " Medicine 112
" " Theology 114
Drawing, Courses in 245
Dress, Academic 93
Dublin University, Affiliation to 6
Dynamics, Courses in 156, 253

Early English Text Society's Prize 61
Ecology 170
Economics, Courses in 151
Education, Course in 153
Electrical Engineering.
Course in 203
Laboratories 348
Subject of 242
Electricity, Courses in 158, 271
Electro-Chemistry 233
Elocution, Fee for 80
Embryology 173, 314
Engineering Building 341
Engineering, Courses in 199
Engineering Societies 189
English :—
Courses in 122, 245
For Matriculation 28
English Composition 122, 245

	PAGE
English Grammar for Matriculation	27
Entrance Examination	17
Into Second Year	42
Requirements for Macdonald College	384
Equivalent Standing for Students from other Universities.	42
Ethics	143
Evidence, Course in	293
Examinations :—	
For Entrance	17
For Exhibitions (in Arts)	49
" " (in Applied Science)	62
For Scholarships (in Arts)	49
In Applied Science	188
In Arts	109
In Medicine	304
Time Tables of	xlvii
Exemptions from Matriculation Examination	19
Exemptions in Arts for Students in Professional Faculties.	111
For Students in Theological Colleges	114
Exhibitions:—	
First Year Entrance in Arts	49
For Graduates of School for Teachers	53
In Applied Science	62
In Law	65
In Medicine	65
Mackenzie	57
Ross, P. S	48
Second Year in Arts	53
Winners of (1909-1910)	434
And see Scholarships.	
Expenses of Board and Residence	45, 376
Experimental Physics, Courses in	159, 270
Faculties, General Statement of	7
Faculty of Applied Science	9, 186
Of Arts	8, 95
Of Law	9, 282
Of Medicine	10, 299
Of Agriculture	10, 380
Fees :—	
In Applied Science	74
In Arts	72
In Dentistry	78
In the Graduate School	79
In Law	78
In Medicine	76
In Music	80
For Athletics	90
For Degrees conferred in absentia	74, 75, 77, 78
For Partial Students	72, 74, 78, 99
For Summer Classes	73, 75
For Matriculation	71
Miscellaneous	80
In Royal Victoria College for Women	72, 376
Time of Payment of	71
Fellows of the University	xvi, 3
Fellowships in Medicine	301
First Year Course in Arts	96
Forestry	171
Foundations and Masonry, Course in	236
Foundation of the University	1
Of the Faculty of Medicine	299
Foundry work, Instruction in	253
Fourth Year Course in Arts	98
Freehand Drawing, Courses in	245

PAGE

French :—
Courses in ... 129
For Matriculation ... 30

Geodesy, Courses in ... 273
Geodetic Laboratory ... 350
Geography for Matriculation ... 28
Geology, Courses in ... 163, 246
Geometry :—
Courses in ... 155, 249
Descriptive ... 241
For Matriculation ... 32, 37
German :—
Courses in ... 133
For Matriculation ... 31
Government of the University ... 3
Governors, Board of ... xvi
Their Powers ... 3
Gowns ... 93
Graduates (1910) ... 425
Graduate Courses in Medicine ... 331
Graduate School ... 12, 369
Graduates' Societies, see Societies.
Graduate Students ... 13
Graduate Studies, Committee on ... xx
Graphical Statics ... 234

Greek:—
Courses in ... 115
For Matriculation ... 29
Grounds, Management of ... 88
Gymnasia ... 91
Gymnastics, Classes for Men in ... 91
Classes for Women in ... 92, 377
Gynæcology ... 326

Hebrew, Courses in ... 138
Histology ... 312
History, Courses in ... 148
Constitutional, Course in ... 150
For Matriculation ... 28
Of the Faculty of Medicine ... 299
Of the University ... 1
History of Medicine, subject of ... 323
Holidays in Law ... 284
Hoods ... 93
Honours in Applied Science ... 69
In Medicine ... 305
Honour Courses in Arts ... 100
Household Science ... 11, 413
Hydraulics, Courses in ... 238
Laboratory ... 350
Hydrostatics ... 156, 250
Hygiene, Museum of ... 360
" Subject of ... 319

Incorporated Colleges ... 5
Instruction, Officers of ... xxii
International Law, Courses in ... 292
Italian ... 135

Laboratories :—
Assaying ... 346
Botanical ... 346
Cement ... 346
Chemical ... 347
Electrical ... 348

	Page
Geodetic	350
Hydraulic	350
Mechanical Engineering	351
Metallurgical and Assaying	351
Mining and Ore-Dressing	352
Oscillograph	354
Petrographical	354
Physical	354
Physiology	356
Psychological	356
Standardizing	356
Strength of Materials	356
Thermodynamic	358
Zoological	359
Latin :—	
Courses in	118
For Matriculation	29
Law, Faculty of	9, 282
Courses of Lectures :—	
Agency and Partnership	288
Civil Procedure	290
Commercial Law	289, 290
Constitutional Law	287
Corporations	289
Criminal Law	289
Evidence	293
International Law	292
Legal History and Bibliography	287
Marriage Covenants and Minor Contracts	290
Municipal Law	290
Obligations	287
Persons	289
Pleading and Practice	292
Real Property and Registration	291
Roman Law	286
Successions, Gifts and Substitutions	290
Entrance Examination in	25
Lectures in Arts	115
Lectures, Time Tables of	xlv
Lecturers, List of	xxii
Legal History and Bibliography, Courses in	287
Lettering, Course in	245
Library Instruction, Summer School in	16
Library, The University	341, 364
Regulations of	365
The Law	282
The Medical	336
Licentiate in Music, Diploma of	179
Lists of Students	436
Literate in Arts, Certificate of	8, 113
LL.D. Degree, Requirements for	84
Lodgings	45
For Women	376
Logic, Courses in	143
M. A. Degree :—	
Courses for	369
Requirements for	81, 370
Macdonald Chemistry and Mining Building	340
Macdonald College	5, 10, 11, 380
Macdonald Engineering Building	341
Macdonald Physics Building	343
Machine Design, Courses in	257
Machine Shop, Instruction in	252
Mackenzie Exhibitions	57

	PAGE
Magnetism, Courses in	160, 272
M.D. Degree, Regulations	10, 301
Marriage Covenants, Courses in Law of	290
Mathematics, Courses in (Arts)	156
(Applied Science)	249
Matriculation Examination	17
At local centres	17
Certificates accepted for	19
Details of work in each Subject	27
Exemptions from	19, 25
Fees for	71
For Medical Students in different Provinces	300
In Dentistry	24, 338
Regulations	17
Subjects for each Faculty	20-27
Matriculation Exhibitions	49
McGill College Book Club	367
McGill College, Founding of	1
McGill, Hon. James, Life of	1
McGill Medical Society	336
McGill Union, The	45, 344
McGill University Conservatorium of Music	8, 179, 341
McGill University College of British Columbia	5, 421
McGill Y. M. C. A	45, 344
Mechanical Engineering.	
Course in	206
Laboratory of	351
Subject of	251
Mechanics, Courses in	158, 250
Medals awarded in Arts	67
For Physical Education	91
In Applied Science	69
In Law	69
In Medicine	70
Medicine, Faculty of	10, 299
Advanced and Graduate Courses	331
Courses of Lectures in :	
Anatomy	307
Biology	313
Chemistry	308
Clinical Medicine	321
Clinical Microscopy	328
Clinical Surgery	324
Dermatology	329
Diseases of Infants	325, 328
Gynæcology	326
Histology	312
History of Medicine	323
Hygiene	319
Medical Jurisprudence	319
Medicine	321
Mental Diseases	328
Microscopy	328
Obstetrics	325
Ophthalmology	327
Oto-Laryngology	327
Pathology, Bacteriology and Parasitology	315
Pharmacology and Therapeutics	318
Physics	308
Physiology	310
Surgery	323
Double Courses in Arts and Medicine	112
Entrance Examination in	24
Examinations in	304
Text Books	329

	Page
Medical Building	342
Medical Council Registrars	300
Medical Jurisprudence	319
Medical Library	336
Medical Society	336
Medicine, Subject of	321
Mental and Moral Philosophy, Courses in	143
Mental Diseases	328
Metallurgy :—	
Course in	213
Laboratories	351
Subject of	260
Metallurgical Engineering, Course in	210
Subject of	260
Metaphysics, Courses in	143
Meteorology, Courses in	175
Microscopy	328
Middle English	126
Military Courses	11, 183
Mineral Analysis	163, 234
Mineralogy, Courses in	163, 246
Mining Building, The Macdonald	340
Mining Engineering :—	
Course in	215
Laboratories	352
Subject of	264
Mining Institute, The Canadian	189
Modern Languages, Courses in	129
Mœso-Gothic	127
Moral Philosophy	143
Morals, Regulations re	87
M. Sc. Degree, Requirements for	82 371
Municipal Law	290
Museums, The Peter Redpath	343, 362
In Medical Building	335
Of Anatomy	360
Of Hygiene	360
Pathological	361
Music, Courses in	8, 179
Examination for entrance	27
Neil Stewart Prize	60
Notarial Law, Courses in	291
Obligations, Courses in Law of	287
Observatory, The	342, 350
Obstetrics	325
Oscillograph Laboratory	354
Officers of Instruction, etc	xxii
Ophthalmology	327
Ore Deposits	166, 247
Organic Chemistry	161, 232
Oto-Laryngology	327
Oxford University, Affiliation to	6
Palæontology, Courses in	165
Parasitology	317
Partnership, Course in	288
Partial Students, Definition of	13
Fees for	72, 74, 78, 79
Regulations for Entrance	13
Pass Standard for Matriculation	19
Pathological Museum	361
Pathology	315
Patternmaking	256
Payment of Fees	71

PAGE.

Pedagogy, Courses in 153
Persons, Courses in Law of 289
Peter Redpath Museum 343, 362
Petrography 165, 247
Petrographical Laboratory 354
Pharmacology and Therapeutics 318
Ph.D. Degree, Requirements for 83, 372
Philosophy, Courses in 142
Physical Chemistry 162, 232
Physical Education 91, 377
Physiography :—
  Courses in 163, 165, 248
  For Matriculation 41
Physiological Laboratories 356
Physiology 310
Physics Building, The Macdonald 343
  Laboratories 354
Physics :—
  Courses in Arts 157
  " " Applied Science 270
  " " Medicine 308
  For Matriculation 41
Pleading and Practice 292
Political Economy 151
Political Science, Courses in 152
Post-Graduate Courses in Medicine 331
Power Station 343
Presbyterian College 6
Principal, The ..... xvi, 3
Prizes in Arts 60
  In Applied Science 62
  In Gymnastics 92
  In Law 65
  In Medicine 65
Procedure, Courses in Civil 290
Professional Students' Exemptions in Arts 111
Professors, List of xxii
Psychology, Courses in 143
Psychological Laboratory 356
Public Health, Diploma Course for 332

Railway Rates 46
Railways :—
  Course in 218
  Subjects of Course in 276
Real Property Law, Courses in 291
Register of Students 436
Registrars of Provincial Medical Councils 300
Registration 43
Regulations :—
  Regarding the Library 365
  re Admission to the Bar 296
  re Attendance 43
  re Matriculation Examination 17
  re Morals and Discipline 87
  re Partial Students 13
  re Registration 43
  re Year Promotion in Arts 110
Requirements for Entrance 17
Requirements for Exhibitions:—
  First Year in Arts 49
  Second Year 53
Requirements for Scholarships in Arts 50, 56
Residence and Board 45
  For Women 45, 376

	Page.
Rhodes Scholarship	47
Roman Law, Courses in	155, 286
Ross (P.S.) Exhibition	48
Royal Victoria College for Women	344, 374
Sanskrit, Courses in	120
Scholarships in Arts	48, 56
In Applied Science	62
H. M. Comsrs.' for the Exhibition of 1851	47
Rhodes	47
Winners of (1909-1910)	434
And see Exhibitions.	
School for Teachers	11, 411
Second Year, Admission to	42
Second Year Course in Arts	97
Second Year Exhibitions	53
Semitic Languages, Courses in	136
Session, Duration of	15
Shakspere Society's Prize	61
Shopwork	259
Singing, Courses in	11,179, 378
Smith Shop work	252
Societies, Associations, and Clubs, Officers of	471
Spanish	136
Special Certificates in Arts	68
Standardizing Laboratory	356
Statics	156, 250
Strathcona Hall	45, 344
Strength of Materials Laboratories	356
Structural Engineering	237
Students, Classes of	13
Lists of	436
Number in Attendance	470
Of other Universities admitted	42
Subjects for Matriculation	27-41
Successions, Courses in the Law of	290
Summer Schools	15, 190
Fees for	73, 74, 75
In French	16
In Library Methods	16
In Mining and Metallurgy	268
In Surveying	274
Summer Work in Applied Science	190
Supplemental Examinations in Arts	111
In Applied Science	188
In Medicine	305
Surgery	323
Surveying, Course in	273
Syriac, Courses in	138, 141
Teachers, School for	11, 411
Text Books for Matriculation	27-41
Text Books in Medicine	330
Theological Colleges, Affiliation of	6
Exemptions in Arts for Students of	114
Theory of Structures	237
Thermodynamics, Courses in	259
Laboratory	358
Third Year Courses in Arts	98
Third Year Scholarships	56
Time Tables of Examinations	xlix
Time Tables of Lectures	xlv
Transportation	218, 276
Trigonometry :—	
Courses in	155, 250
For Matriculation	40

	PAGE
Undergraduates, Definition of	13
List of	436
Union, The McGill	45, 344
University Athletic Association	90
University Book Club	368
University Buildings	340
University College of British Columbia	421
University, Government of	3
University Library, The	341, 364
Vancouver College	5, 421
Victoria College, B.C.	5, 421
Victoria College for Women, The Royal	344, 374
Wesleyan College	6
Women, Courses open to, in Arts	9, 374
Gymnastic Classes for	92, 377
Residence, etc	376
The Royal Victoria College for	344, 374
Workshops, Instruction in	363
Year Promotion	110
Y.M.C.A. of McGill University	45, 344
Zoological Laboratories	359
Zoology, Courses in	172, 314

1910-1911.

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GOVERNOR-GENERAL OF CANADA, ETC.

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WILLIAM PETERSON, M.A., LL.D., C.M.G., Vice-Chancellor.
(The Principal has, under the Statutes, the general superintendence of all affairs of the College and University, under such regulations as may be in force.)

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H. C. Perrin, Mus Doc., Director of the McGill Conservatorium of Music.
Ethel Hurlbatt, M.A., Warden of the Royal Victoria College.

To retire 1st September, 1911.

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Lecturer in English Language and Literature. McGill College.

FACULTY OF LAW.

(Macdonald Foundation.)

THE PRINCIPAL.

F. P. WALTON, B.A. (Oxon.), LL.B. (Edin.), LL.D. (Aberdeen).
Dean of the Faculty of Law and Gale Professor of Roman Law. 552 Pine Ave. W.

ARCHIBALD MCGOUN, M.A., B.C.L., K.C.
Professor of Civil and Municipal Law.
Dunavon, Westmount, and 157 St. James Street.
W. DE M. MARLER, B.A., D.C.L.
Professor of Civil Law. 288 Peel Street.
HON. CHARLES J. DOHERTY, D.C.L.
Professor of Civil, Commercial and International Law.
282 Stanley St.
HON. A. G. CROSS, B.A., B.C.L., K.C.
Professor of Commercial Law. Metcalfe Ave., Westmount.
HON. CHARLES PEERS DAVIDSON, M.A., D.C.L.
Professor of Criminal Law.
The Linton Apartments, Sherbrooke Street.
R. C. SMITH, B.C.L., K.C.
Professor of Commercial Law. 4280 Dorchester St., Westmount.
AIMÉ GEOFFRION, B.C.L.
Professor of Civil Law. 50 Durocher Street.
GORDON W. MCDOUGALL, B.A., B.C.L., K.C.
Professor of Commercial Law. New York Life Building.

(*The above Professors constitute the Faculty of Law.*)

OTHER OFFICERS OF INSTRUCTION.

E. FABRE SURVEYER, B.A. (Laval), B.C.L.
Lecturer in Pleading and Practice. 161 St. Famille Street.
ARNOLD WAINWRIGHT, B.C.L.
Lecturer on the Law of Evidence. 156 Metcalfe St.

FACULTY OF MEDICINE.

THE PRINCIPAL.

FRANCIS J. SHEPHERD, M.D., LL.D. (Edin. and Harvard), F.R.C.S.E., *Dean of the Faculty and Professor of Anatomy and Dermatology.* 152 Mansfield Street.
GEORGE WILKINS, M.D.
Professor of Medical Jurisprudence. 538 Dorchester Street W.
D. P. PENHALLOW, D.Sc., F.R.S.C., F.R.M.S.
Professor of Botany. The Linton Apartments.

Joseph Morley Drake Professor of Physiology. McGill College.
J. CHALMERS CAMERON, M.D.
Professor of Midwifery and Diseases of Infants.
605 Dorchester Street W.
ALEX. D. BLACKADER, B.A., M.D.
Professor of Pharmacology and Therapeutics, and of Diseases of Children. 236 Mountain Street.
R. F. RUTTAN, B.A. (Toronto), M.D., F.R.S.C.
Professor of Organic and Biological Chemistry. McGill College.
JAMES BELL, M.D.
Professor of Surgery and of Clinical Surgery.
409 Dorchester Street, W.

J. J. Ross, B.A., M.D.
Lecturer in Anatomy. 414 Bourgeois Street.

A. E. Orr, M.D.
Lecturer in Anatomy. 540 Dorchester Street W.

Oscar C. Grunner, M.D.
Lecturer in Pathology.

W. B. Howell, M.D.
Lecturer in Physiology. 47 St. Mark St.

T. P. Shaw, M.D.
Lecturer in Physiology.

H. D. Hamilton, M.A., (Bishop's), M.D., L.R.C.P. & S. (Edin.), L.F.P. & S. (Glasgow).
Demonstrator in Laryngology and Rhinology.
Birks Building, Phillips Square.

A. H. Gordon, M.D.
Demonstrator in Clinical Medicine. 125 Hutchison Street.

F. B. Jones, M.D., D.P.H.
Demonstrator in Hygiene. 98 Sherbrooke Street W.

H. B. Cushing, B.A., M.D.
Demonstrator in Histology and Clinical Medicine.
231 Stanley Street.

J. L. D. Mason, B.A., M.D.
Demonstrator in Pharmacology and Therapeutics.
30 Shuter Street.

C. B. Keenan, M.D.
Demonstrator in Clinical Surgery. 376 Mountain Street.

J. R. Goodall, M.D.
Demonstrator in Gynæcology.

A. T. Bazin, M.D.
Demonstrator in Clinical Surgery.
4064 Dorchester St., Westmount.

H. R. D. Gray, B.A., M.D.
Demonstrator in Obstetrics. 59 Beaver Hall Hill.

C. F. Wylde, M.D.
Demonstrator in Clinical Medicine and Clinical Microscopy.
101 Crescent Street.

David Patrick, M.D.
Demonstrator in Gynæcology.
4174 St. Catherine Street, Westmount.

C. A. Peters, M.D.
Demonstrator in Clinical Medicine.
370 Mountain St.

F. M. Fry, B.A., M.D.
Demonstrator in Clinical Medicine and Diseases of Infants and Children. 577 Dorchester Street W.

R. P. Campbell, B.A., M.D.
Demonstrator in Pathology and Assistant Demonstrator in Clinical Surgery. 343 Dorchester Street W.

A. C. P. Howard, B.A., M.D.
Demonstrator in Clinical Chemistry, Clinical Medicine and Diseases of Infants and Children. 56 Mackay Street.

Charles K. P. Henry, M.D.
Demonstrator in Anatomy and Assistant Demonstrator in Clinical Surgery. 4549 Sherbrooke St., Westmount.

COLIN K. RUSSELL, B.A., M.D.
Demonstrator in Clinical Medicine. 86 Mackay Street.

W. H. JAMIESON, M.D.
Demonstrator in Oto-Laryngology. 209 Peel Street.

A. R. PENNOYER, M.D.
Demonstrator in Clinical Surgery. 98 Mackay Street.

W. P. BURNETT, M.D.
Demonstrator in Dermatology.

A. MACKENZIE FORBES, M.D.
Demonstrator in Orthopædic Surgery. 485 Guy Street.

F. T. TOOKE, B.A., M.D.
Demonstrator in Ophthalmology. 368 Mountain Street.

S. HANFORD MCKEE, B.A., M.D.
Demonstrator in Bacteriology and Ophthalmology.
249 Mountain Street.

ROBERT H. CRAIG, M.D.
Demonstrator in Rhinology and Laryngology.
186 Peel Street.

J. C. MEAKINS, M.D.
Demonstrator in Clinical Medicine and in Bacteriology.

W. W. FRANCIS, A.B., and M.D. (Johns Hopkins).
Demonstrator in Pathology and Assistant Demonstrator in Clinical Medicine. 125 Mansfield Street.

H. W. MATHESON, M.D.
Demonstrator in the Clinical Laboratory.

J. W. DUNCAN, M.D.
Demonstrator in Obstetrics.
"The New Sherbrooke," Sherbrooke St.

W. G. TURNER, M.D.
Demonstrator in Orthopædic Surgery. 208 Peel Street.

W. H. DONNELLY, M.D.
Demonstrator in Bacteriology. 543 St. Antoine Street.

A. L. C. GILDAY, B.A., M.D.
Demonstrator in Physiology.

H. C. BURGESS, M.D.
Demonstrator in Obstetrics.

J. APPLETON NUTTER, B.A., M.D.
Assistant Demonstrator in Anatomy. 45 Cathcart Street.

J. G. BROWNE, B.A., M.D.
Assistant Demonstrator in Clinical Medicine. 1171 St. Denis St.

E. M. VON EBERTS, M.D.
Assistant Demonstrator in Clinical Surgery. 107 Metcalfe Street.

W. H. P. HILL, M.D.
Assistant Demonstrator in Clinical Surgery. 86 Mackay St

A. G. MCAULEY, M.D.
Assistant Demonstrator in Clinical Medicine.
475 St. Antoine Street.

D. W. MCKECHNIE, M.D.
Assistant Demonstrator in Clinical Medicine.
737 Park Ave., Montreal Annex.

J. W. HUTCHINSON, M.D.
Assistant Demonstrator in Anatomy and Clinical Surgery.

F. MCKENTY, M.D.
Assistant Demonstrator in Anatomy and Clinical Surgery.

H. S. Muckleston, M.D.
Assistant Demonstrator in Oto-Laryngology.
Hamilton White, B.A., M.D.
Assistant Demonstrator in Oto-Laryngology.
W. H. Smyth, M.D.
Assistant Demonstrator in Anatomy.
W. J. Paterson, M.D.
Assistant Demonstrator in Clinical Surgery.
F. S. Jackson, M.D.
Assistant Demonstrator in Anatomy.
C. F. Moffat, M.D.
Assistant Demonstrator in Medicine.

Dental Department.

Fred. G. Henry, D.D.S.
Professor of Dental Pathology, Dental Materia-Medica and Therapeutics. Corner Guy and St. Catherine Streets.
D. James Berwick, D.D.S.
Professor of Operative Dentistry, and Chairman of the Dental Executive. 485 St Catherine Street W.
James B. Morrison, D.D.S.
Professor of Orthodontia and Crown and Bridge Work. 14 Phillips Square.
George S. Cameron, L.D.S.
Professor of Prosthetic Dentistry. Birks' Building, Phillips Square.
F. H. A. Baxter, D.D.S.
Lecturer in Prosthetic Technique, Dental Anatomy, Dental Histology and Dental Surgery. Lindsay Building.
W. Watson, B.A., D.D.S.
Lecturer in Operative Technique and Operative Dentistry. 54 Park Ave.
J. S. Dohan, D.D.S.
Demonstrator in Crown and Bridge Work. 127 Stanley St.
J. S. Ibbotson, D.D.S.
Director of Dental Clinic. 119 Crescent St.
Leo Doran, D.D.S.
Superintendent of Dental Clinic.

FACULTY OF AGRICULTURE.

(Macdonald College.)

The Principal.
F. C. Harrison, B.S.A. (Toronto), D.Sc.
Acting Principal and Professor of Bacteriology. St. Anne de Bellevue.
William Lochhead, B.A., M.Sc. "
Professor of Biology.
Carleton J. Lynde, Ph.D. "
Professor of Physics.
Leonard S. Klinck, B.S.A., M.S. "
Professor of Husbandry.

St. Anne de Bellevue.

W. Saxby Blair.
Professor of Horticulture. "
J. F. Snell, Ph.D.
Professor of Chemistry. "
For other Officers of Instruction in the several departments of Macdonald College, see page 382.

McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

See page 421.

Professors Emeriti.

(*Retaining their Rank and Titles, but retired from work.*)

Alex. Johnson, M.A., LL.D., D.C.L., F.R.S.C.
Vice-Principal Emeritus, and Emeritus Professor in the Faculty of Arts. 5 Prince of Wales Terrace.
Hon. Matthew Hutchinson, D.C.L.
Emeritus Professor in the Faculty of Law.
Sherbrooke, Que.
Hon. J. Emery Robidoux, D.C.L., Officier de l'Instruction Publique, Chevalier de la Légion d'Honneur.
Emeritus Professor in the Faculty of Law. 151 University St.
Gilbert P. Girdwood, M.D.C.M., M.R.S.C. (England), F.I.C., F.C.S., F.R.S.C.
Emeritus Professor in the Faculty of Medicine.
111 University Street.
J. Clark Murray, LL.D., F.R.S.C.
Emeritus Professor in the Faculty of Arts. 20 McTavish Street.
Duncan McEachran, D.V.S., F.R.C.V.S., LL.D.
Emeritus Dean and Professor in the Faculty of Comparative Medicine and Veterinary Science. 176 University Street.
Thomas G. Roddick, M.D., LL.D. (Edin.).
Emeritus Dean and Professor in the Faculty of Medicine.
80 Union Ave.
T. Wesley Mills, M.A., M.D., F.R.S.C.
Emeritus Professor of Physiology.
William Gardner, M.D.
Emeritus Professor of Gynæcology. 457 Sherbrooke St. W.

SEPTEMBER, 1910.

1	Thursday	
2	Friday	
3	Saturday	
4	**SUNDAY**	
5	Monday	Summer School in Surveying opens. Library closed.
6	Tuesday	
7	Wednesday	
8	Thursday	Finance Committee.
9	Friday	
10	Saturday	
11	**SUNDAY**	
12	Monday	
13	Tuesday	
14	Wednesday	
15	Thursday	
16	Friday	
17	Saturday	
18	**SUNDAY**	
19	Monday	New Medical Buildings opened, 1901.
20	Tuesday	
21	Wednesday	
22	Thursday	
23	Friday	Matriculation, Exhibition, Scholarship and Supplemental Examinatio n in Arts.
24	Saturday	
25	**SUNDAY**	
26	Monday	Supplemental Examinations for Students not attending the SurveySchool. Meeting of Governors. Register opens for Students in Medicine.
27	Tuesday	
28	Wednesday	
29	Thursday	Registration of new Students.
30	Friday	Registration of new Students continued.

OCTOBER, 1910.

1	Saturday	Session opens in all Faculties. Conservatorium of Music opens. Registration of students previously enrolled. Meeting of Faculty of Medicine.
2	**SUNDAY**	
3	Monday	Lectures begin in all Faculties. Meeting of Faculty of Applied Science.
4	Tuesday	
5	Wednesday	
6	Thursday	Founder's Birthday. University Lecture. Physics Building Committee.
7	Friday	Meeting of Faculty of Arts Meeting of Teachers' Training Committee.
8	Saturday	
9	**SUNDAY**	
10	Monday	William Molson Hall opened, 1862. Summer Essays in Applied Science to be sent in. Museum Committee. Library Committee.
11	Tuesday	
12	Wednesday	Regular Meeting of Corporation.
13	Thursday	
14	Friday	Conservatorium of Music opened, 1904. Finance Committee.
15	Saturday	
16	**SUNDAY**	
17	Monday	Eng.'g Building Committee. Chemistry and Mining Building Committee.
18	Tuesday	
19	Wednesday	
20	Thursday	
21	Friday	Meeting of Faculty of Arts.
22	Saturday	
23	**SUNDAY**	
24	Monday	Meeting of Governors.
25	Tuesday	
26	Wednesday	
27	Thursday	
28	Friday	
29	Saturday	
30	**SUNDAY**	
31	Monday	New Library opened, 1893.

NOTE.—Meetings of the Faculty of Arts are held at 4 P.M. unless otherwise specified.
The University Library is closed on Thanksgiving Day.

NOVEMBER, 1910.

1	Tuesday	
2	Wednesday	
3	Thursday	
4	Friday	
5	Saturday	Meeting of Faculty of Medicine.
6	SUNDAY	
7	Monday	Meeting of Faculty of Applied Science.
8	Tuesday	
9	Wednesday	Edward VII born, 1841.
10	Thursday	Finance Committee.
11	Friday	Meeting of Faculty of Arts.
12	Saturday	
13	SUNDAY	
14	Monday	
15	Tuesday	
16	Wednesday	
17	Thursday	
18	Friday	
19	Saturday	
20	SUNDAY	
21	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
22	Tuesday	
23	Wednesday	
24	Thursday	
25	Friday	
26	Saturday	
27	SUNDAY	
28	Monday	Meeting of Governors.
29	Tuesday	
30	Wednesday	

DECEMBER, 1910.

1	Thursday	
2	Friday	Meeting of Faculty of Arts. Meeting of Teachers' Training Committee.
3	Saturday	Meeting of Faculty of Medicine.
4	SUNDAY	
5	Monday	Meeting of Faculty of Applied Science.
6	Tuesday	
7	Wednesday	Meeting of Academic Board.
8	Thursday	Physics Building Committee. Finance Committee.
9	Friday	
10	Saturday	
11	SUNDAY	
12	Monday	Museum Committee. Library Committee.
13	Tuesday	Lectures for first term in Arts end.
14	Wednesday	Regular Meeting of Corporation.
15	Thursday	Christmas Examinations in Arts begin. Lectures for first term in Applied Science end.
16	Friday	Lectures for first term in Law end. Meeting of Faculty of Arts.
17	Saturday	
18	SUNDAY	
19	Monday	Engineering Building Committee. Chemistry and Mining Building Committee. Examinations in Applied Science begin.
20	Tuesday	Chemistry and Mining Building opened, 1898.
21	Wednesday	
22	Thursday	Christmas Vacation begins
23	Friday	
24	Saturday	Library closed.
25	SUNDAY	Christmas Day.
26	Monday	Meeting of Governors.
27	Tuesday	
28	Wednesday	
29	Thursday	
30	Friday	
31	Saturday	Library closed.

1	SUNDAY	
2	Monday	Meeting of Faculty of Applied Science.
3	Tuesday	
4	Wednesday	Second Term opens in all Faculties.
5	Thursday	
6	Friday	
7	Saturday	Meeting of Faculty of Medicine.
8	SUNDAY	
9	Monday	
10	Tuesday	
11	Wednesday	
12	Thursday	Finance Committee.
13	Friday	Meeting of Faculty of Arts.
14	Saturday	
15	SUNDAY	
16	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
17	Tuesday	
18	Wednesday	
19	Thursday	
20	Friday	
21	Saturday	
22	SUNDAY	Queen Victoria died, 1901.
23	Monday	Meeting of Governors.
24	Tuesday	
25	Wednesday	
26	Thursday	
27	Friday	
28	Saturday	
29	SUNDAY	
30	Monday	
31	Tuesday	

FEBRUARY, 1911.

1	Wednesday	
2	Thursday	Physics Building Committee.
3	Friday	Meeting of Faculty of Arts. Meeting of Teachers' Training Committee.
4	Saturday	Meeting of Faculty of Medicine.
5	SUNDAY	
6	Monday	Museum Committee. Library Committee. Meeting of Faculty of Applied Science
7	Tuesday	
8	Wednesday	Regular Meeting of Corporation
9	Thursday	Finance Committee.
10	Friday	
11	Saturday	
12	SUNDAY	
13	Monday	
14	Tuesday	
15	Wednesday	
16	Thursday	
17	Friday	Meeting of Faculty of Arts.
18	Saturday	
19	SUNDAY	
20	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
21	Tuesday	
22	Wednesday	
23	Thursday	
24	Friday	Physics and Engineering Buildings opened, 1893.
25	Saturday	
26	SUNDAY	
27	Monday	Meeting of Governors.
28	Tuesday	

MARCH, 1911.

1	Wednesday	Meeting of Academic Board. Ash Wednesday.
2	Thursday	
3	Friday	Meeting of Faculty of Arts.
4	Saturday	Meeting of Faculty of Medicine.
5	**SUNDAY**	
6	Monday	Meeting of Faculty of Applied Science.
7	Tuesday	
8	Wednesday	
9	Thursday	Finance Committee.
10	Friday	
11	Saturday	
12	**SUNDAY**	
13	Monday	
14	Tuesday	
15	Wednesday	
16	Thursday	
17	Friday	Meeting of Faculty of Arts.
18	Saturday	
19	**SUNDAY**	
20	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
21	Tuesday	
22	Wednesday	
23	Thursday	
24	Friday	
25	Saturday	
26	**SUNDAY**	
27	Monday	Meeting of Governors.
28	Tuesday	
29	Wednesday	
30	Thursday	
31	Friday	

APRIL, 1911.

1	Saturday	Meeting of Faculty of Medicine.
2	**SUNDAY**	
3	Monday	Meeting of Faculty of Applied Science.
4	Tuesday	
5	Wednesday	Macdonald Engineering Building burned, 1907.
6	Thursday	Physics Building Committee.
7	Friday	Meeting of Teachers' Training Committee. Meeting of Faculty of Arts.
8	Saturday	
9	**SUNDAY**	
10	Monday	Museum Committee. Library Committee. Last day for receiving M.A. and M.Sc. theses.
11	Tuesday	
12	Wednesday	Regular Meeting of Corporation.
13	Thursday	Last day of Lectures in Arts, Law and Applied Science. Finance Committee.
14	Friday	Good Friday. Library closed.
15	Saturday	
16	**SUNDAY**	Easter Sunday. Medical Building burned, 1907.
17	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
18	Tuesday	Sessional Examinations begin in Arts, Applied Science and Law.
29	Wednesday	
20	Thursday	
21	Friday	Meeting of Faculty of Arts.
22	Saturday	
23	**SUNDAY**	
24	Monday	Meeting of Governors.
25	Tuesday	
26	Wednesday	
27	Thursday	
28	Friday	
29	Saturday	
30	**SUNDAY**	

MAY, 1911.

1	Monday	Meeting of Faculty of Applied Science.
2	Tuesday	
3	Wednesday	
4	Thursday	
5	Friday	
6	Saturday	Meeting of Faculty of Medicine. Edward VII died, 1910.
7	SUNDAY	
8	Monday	
9	Tuesday	
10	Wednesday	
11	Thursday	Finance Committee.
12	Friday	Convocation for Conferring Degrees in Arts, Law and Applied Science.
13	Saturday	
14	SUNDAY	
15	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
16	Tuesday	
17	Wednesday	
18	Thursday	
19	Friday	
20	Saturday	
21	SUNDAY	
22	Monday	Meeting of Governors.
23	Tuesday	
24	Wednesday	Library closed.
25	Thursday	
26	Friday	
27	Saturday	
28	SUNDAY	
29	Monday	
30	Tuesday	
31	Wednesday	

JUNE, 1911.

1	Thursday	Graduate course in Medicine begins.
2	Friday	Meeting of Teachers' Training Committee.
3	Saturday	Meeting of Faculty of Medicine.
4	SUNDAY	
5	Monday	
6	Tuesday	
7	Wednesday	
8	Thursday	Physics Building Committee. Finance Committee.
9	Friday	
10	Saturday	
11	SUNDAY	
12	Monday	Museum Committee. Library Committee.
13	Tuesday	
14	Wednesday	Regular Meeting of Corporation.
15	Thursday	
16	Friday	
17	Saturday	
18	SUNDAY	
19	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
20	Tuesday	
21	Wednesday	
22	Thursday	
23	Friday	
24	Saturday	
25	SUNDAY	
26	Monday	Meeting of Governors
27	Tuesday	
28	Wednesday	
29	Thursday	
30	Friday	

JULY, 1911.

1 Saturday	Library closed.
2 SUNDAY	
3 Monday	
4 Tuesday	
5 Wednesday	
6 Thursday	
7 Friday	
8 Saturday	
9 SUNDAY	
10 Monday	
11 Tuesday	
12 Wednesday	
13 Thursday	
14 Friday	
15 Saturday	
16 SUNDAY	
17 Monday	
18 Tuesday	
19 Wednesday	
20 Thursday	
21 Friday	
22 Saturday	
23 SUNDAY	
24 Monday	
25 Tuesday	
26 Wednesday	
27 Thursday	
28 Friday	
29 Saturday	
30 SUNDAY	
31 Monday	

AUGUST, 1911.

1 Tuesday	
2 Wednesday	
3 Thursday	
4 Friday	
5 Saturday	
6 SUNDAY	
7 Monday	
8 Tuesday	
9 Wednesday	
10 Thursday	
11 Friday	
12 Saturday	
13 SUNDAY	
14 Monday	
15 Tuesday	
16 Wednesday	Peter Redpath Museum opened, 1882.
17 Thursday	
18 Friday	
19 Saturday	
20 SUNDAY	
21 Monday	
22 Tuesday	
23 Wednesday	
24 Thursday	
25 Friday	
26 Saturday	
27 SUNDAY	
28 Monday	
29 Tuesday	
30 Wednesday	
31 Thursday	

TIME TABLES

OF

LECTURES AND EXAMINATIONS

TIME TABLES OF LECTURES.

Faculty of Arts.

Hour.	First Year Men.	First Year Women.	Second Year.	Third & Fourth Years.
Lectures at 9, omitting Friday.	Mathematics.	English. Gymnasium. (Tues. & Thurs.)	English—Men. French—Women. German—Men (Fri.) Latin—Women (Fri.)	Sanskrit. Geology. (Mon. Wed. Thurs.)
Lectures at 10, omitting Tuesday	Latin.	French.	Chemistry. (Mon. Wed. Thurs.) German—Men (Tues.) Hebrew. Gymnasium—Women. (Tues.)	History. Mathematics. German. Botany. Physics.
Lectures at 11, omitting Thursday	French. History (Thurs.)	Latin.	Economics and History. German—Women. Gymnasium—Women. (Thurs.) German—Men (Thurs.)	Economics. Latin. Chemistry. Hebrew. English. Eng. Comp. III (Wed.)
Lectures at 12, omitting Wednesday	English. (Mon. & Thurs.)	Mathematics. History. (Wed.)	Latin. German—Men (Wed.) Latin—Women (Fri.)	Philosophy. French. Eng. Comp. IV (Wed.)
Lectures at 2, omitting Wednesday	Physics. (Tues. & Thurs.)	Physics. (Mon. & Fri.)	Mathematics. *Zoology— (Monday and Thursday); †Botany (Mon. & Thurs.) Logic.	Political Science. Zoology (Tues. and Fri.)
Lectures at 3, omitting Wednesday	Greek.	German.	English—Women. French—Men.	Greek. Psychology. Mechanics. (Mon. and Thurs.) Astronomy (Tues. & Fri.)
Lectures at 4, omitting Wednesday	German.	Greek.	Greek.	Logic. English. Comp. Philology. (Tues. & Thurs.)
Lectures at 5, omitting Wednesday				Roman Law. Education. Constitutional Law. (Tues. and Fri.)

LABORATORY HOURS. Second Year: Chemical Laboratory for Men and Women, Monday and Thursday, from 3 to 5; Zoological Laboratory*, Monday and Thursday, Botanical Laboratory† for Men and Women, Thursday, 4 to 6; Saturday, 11 to 1.

Third and Fourth Years: Chemical Laboratory, Monday, 2 to 5, Wednesday, 3 to 6, Saturday, 9 to 12; Zoological Laboratory*, Monday 2 to 4, and Thursday, 2 to 4; Botanical Laboratory† Tuesday, 3 to 6, and Friday, 3 to 6; Physics Laboratory, Monday and Tuesday, 2 to 4; Geological Laboratory, Saturday, 9 to 1.

* Before Christmas. † After Christmas.

Women students of the Third Year are required to spend one hour a week in the gymnasium.

TIME TABLES OF LECTURES.

Faculty of Law.

FIRST YEAR.

Monday, 3rd October, 1910, to Friday, 16th December, 1910.
(10 weeks and 3 Days).

Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof. McGoun.	Prof. Doherty.	Prof. McGoun.	Prof. Doherty	Prof. McGoun. (5 weeks.)
3.00				The Dean. (Obligations.)	Prof. Doherty. (5 weeks)
4.00	The Dean.	The Dean.	The Dean.		The Dean.
5.00	The Dean. (Constitutional)	Prof. Marler.	Prof. Marler.		Prof. Marler. (5 weeks.) The Dean. (5 weeks.) Constitutional

Wednesday, 4th January to Thursday, 13th April—(14 weeks).

Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof. Surveyer.	Prof. MacDougall	Prof. MacDougall	Prof. Surveyer (Obligations.)	Prof. Surveyer.
4.00	Roman. Constitutional (10 weeks.)	Roman.	Roman. Constitutional (10 weeks.)		Roman. Const. (10 weeks.)
5.00	Prof. Davidson (3 weeks.)		Prof. Davidson. (3 weeks.)		Prof. Davidson (3 weeks.)

TIME TABLES OF LECTURES.

Faculty of Law.

SECOND AND THIRD YEARS.

(Wednesday, 7th Sept., to Friday, 30th Sept.)

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof. Doherty.	Prof. Doherty.	Prof. Doherty.	Prof. Doherty	Prof. Doherty
4.00	Prof. Doherty.	Prof. Doherty	Prof. Doherty.	Prof. Doherty.	Prof. Doherty
5.00	Prof. Doherty	Prof. Doherty.	Prof. Doherty.	Prof. Doherty.	Prof. Doherty

Monday, 3rd Oct to Friday, 16th December—10 weeks and 3 Days.

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof Geoffrion.	Prof. Doherty.	Prof. Geoffrion.	Prof. Doherty. (Obligations).	Prof. Doherty. (5 weeks)
3.00					
4.00	Prof. Cross.	Prof. Doherty.	Prof. Cross.		Prof. Cross.
5.00	Prof. Davidson.	Prof. Smith.	Prof. Davidson.		Prof. Smith.

Wednesday, 4th January to Monday, 13th April—(14 weeks).

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
8.30	Prof. Doherty.	Prof. McGoun	Prof. Geoffrion	Prof. McGoun (Obligations.)	Prof. Geoffrion.
3.00					
4.00	Prof. Doherty Prof. Marler.	Prof. Doherty. Prof. Marler	Prof. Doherty. Prof. Marler		Prof. Doherty
5.00	Prof. Davidson (7 weeks) Prof. MacDougall (6 weeks)	Prof. Smith	Prof. Davidson (7 weeks) Prof. MacDougall. (6 weeks)		Prof. Davidson (7 weeks) Prof. MacDougall. (6 weeks)

EXAMINATION TIME TABLES.

Matriculation Examination.

SEPTEMBER, 1910.

Friday, September 23rd.

Morning	9–10.45.—English Grammar.
	10.45–12.45.—English Composition
Afternoon	2.30–4.30.—English Literature.
	4.30–6.30.—History.

Monday, September 26th.

Morning	9–11.—Latin Books.
	11–1.—Arithmetic.
Afternoon	2.30–4.30.—Latin Composition and Sight.

Tuesday, September 27th.

Morning	9–11.—French.
	11–12.30.—Trigonometry.
Afternoon	2.30–4.30.—German.
	4.30–6.—Chemistry and Botany.

Wednesday, September 28th.

Morning	9–11.—Geometry, Part I.
	11–12.30.—Physics and Physiography.
Afternoon	2.30–4.15—Algebra, Part II.

Thursday, September 29th.

Morning	9–11.—Algebra, Part I.
	11–1.—Greek Books.
Afternoon	2.30–4.15.—Geometry, Part II.
	4.15–615.—Greek Composition and Sight.

EXAMINATION TIME TABLES.

Faculty of Arts.

Exhibition, Scholarship and Supplemental Examinations, September, 1910.

DATE.	Hour.	Supp. to First Year Sessional.	Second Year Exhibitions.	Supp. to Second Year Sessional.	Scholarships (Third Year).	Supp. to Third Year Sessional.*
Friday..... 23	9	English Literature.	English Literature (Shakspere); History.	English Literature.	English Literature (Shakspere and Milton).	English Literature.
	2.30	English Composition and History.	English Literature. (Milton, Johnson).	English Composition.	English Literature (Burke & Arnold).	English Composition.
Monday..... 26	9	Latin Books.	Latin Books.	Latin Books.	Latin Texts.	Latin Books.
	2.30	Latin Composition, Sight Translation and History.	Latin Composition, Sight Translation and History.	Latin Composition, Sight Translation, History and Literature.	Latin Composition and Sight.	Latin Composition, Sight Translation, History and Literature.
Tuesday..... 27	9	French.	French Texts.	French.	French Books.	French. Botany.
	2.30	French.	German Texts.	French. Semitics	French Composition and Sight.	German.
Wednesday.. 28	9	Algebra.	Geometry. (Major and Minor) Trigonometry (Minor).	Algebra.	Animal Biology. Analytic Geometry. Rom. Hist. and Lit., 9-10.30. Greek Hist. and Lit., 10.30-12.	Mathematics.
	2.30	Trigonometry.	French Comp. and Sight.	Psychology.	German Books. Plant Biology. Logic.	Chemistry.
Thursday.....29	9	Greek Books. German.	Greek Books. Algebra. (Major and Minor) Trigonometry. (Major)	Greek Books. Logic. German.	Greek Texts. Physics. Psychology.	Greek Books.
	2.30	Greek Composition, Sight Translation and History. German.	Greek Composition, Sight Translation and History.	Greek Composition, Sight Translation and History. Animal Biology. German.	Chemistry. Greek Composition and Sight. Economics.	Greek Composition, Sight Translation, History and Literature.
Friday.....30	9	Physics.	Theory of Equations. German Comp. and Sight.	Conics and Solid Geometry. Plant Biology.	Infinitesimal Calculus. German Comp. & Sight.	Political Economy.
	2.30	Geometry	Physics.	Chemistry. History and Economics	Economics. Modern History and English Comp. Philosophy. (Berkeley).	Political Science.

* Periods for other subjects to be arranged at the time of the Examination.

EXAMINATION TIME TABLES.

Faculty of Arts.

Christmas Examination, 1910.

	First Year.	Second Year.	Third and Fourth Years.
Thursday, Dec. 15th..A.M.	Mathematics	French.	Education; Geology.
" P.M.	Latin.	Chemistry. Hebrew. German.	History; Mathematics; German; Botany; Physics.
Friday, Dec. 16th....A.M.	French.	Economics.	Economics; Latin; Chemistry; Hebrew; English.
" P.M.	English.	Latin.	Philosophy; French.
Monday, Dec. 19th...A.M.	Physics.	Mathematics. Biology. Logic.	Political Science; Zoology.
" P.M.	Greek.	English.	Greek; Psychology: Mechanics.
Tuesday. Dec. 20th...A.M.	German.	Greek.	Logic; English.
" P.M.	History.	History.	Astronomy.

Pass List

EXAMINATION TIME TABLES.

Faculty of Arts.

Sessional Examinations, 1911.

Morning examinations commence at 9; afternoon examinations at 2.30.

Day and Date.	First Year.	Second Year.	Third and Fourth Years.
Tuesday, April 18th....P.M.			English Composition.
Wednesday, April 19th.A.M.	Mathematics.	French.	Education; Geology; Sanskrit.
" P.M.	Mathematics.	French.	Education; Geology; Sanskrit.
Thursday, April 20th...A.M.	Latin.	Chem.; Heb.; German.	Hist.; Math.; German; Botany; Physics.
" P.M.	Latin.	Chem.; Heb.; German.	Hist.; Math.; German; Botany; Physics.
Friday, April 21st.....A.M.	French.	Economics.	Econ.; Latin; Chem.; Hebrew; English.
" P.M.	French.	History.	Econ.; Latin. Chem.; Hebrew; English.
Monday, April 24th....A.M.	English.	Latin.	Philosophy; French.
" P.M.	English.	Latin.	Philosophy; French.
Tuesday, April 25th....A.M.	Physics.	Mathematics; Zoology. Logic.	Political Science; Zoology.
" P.M.	History.	Mathematics; Botany.	Political Science; Zoology.
Wednesday, April 26th.A.M.	Greek.	English.	Greek; Psychology; Mechanics.
" P.M.	Greek.	English.	Greek; Psychology; Astronomy.
Thursday, April 27th..A.M.	German.	Greek.	Logic; English; Comparative Philology.
" P.M.	German.	Greek.	Logic; English; Comparative Philology.

McGill University.

HISTORY AND CONSTITUTION.

Foundation and Early History.

Almost alone in this respect among Canadian colleges and universities, McGill University owes its origin to a private endowment. Its founder, the Hon. James McGill, from whom the University takes its name, was born on the 6th October, 1744, in Glasgow, Scotland, where he received his early education and training. Emigrating to Canada before the American Revolution, he engaged in the North-West fur trade, then one of the leading branches of business in Canada. Subsequently he settled in Montreal, and, in partnership with his brother, Andrew McGill, became one of its leading merchants, distinguished for his public spirit and his exertions for the advancement of the city. He was lieutenant-colonel, and subsequently colonel, of the Montreal City Militia, and in his old age, on the breaking out of the American war of 1812, he became brigadier-general, and was prepared to take the field in defence of his country. He also represented the West Ward of Montreal in the Provincial Legislature, and was afterwards a member of the Legislative and Executive Councils. Cultivating and enjoying the society of the few men of learning then in the colony, he took a special interest in the establishment of an educational system in the Province of Quebec. By his will, bearing date the 8th January, 1811, more than two years before his death, which happened on the 19th December, 1813, he bequeathed his property of Burnside and a sum of £10,000 in money to found a college in a provincial university, the erection of which had already been provided for by the generosity

of the British Government. Three leading citizens of Montreal were among the trustees appointed under his will, who were directed to convey the subject property of the bequest to the Royal Institution for the Advancement of Learning, a body which, in 1802, had been incorporated by the Legislature "for the establishment of free schools and the advancement of learning" in the Province of Quebec. The conditions upon which the property was to be transferred to the Royal Institution for the Advancement of Learning were, mainly, that that Institution should, within ten years after the testator's decease, erect and establish on his Burnside estate "a University or College, for the purposes of education and the advancement of learning in this Province," and that the college, or one of the colleges in the University, if established, should "be named and perpetually be known and distinguished by the appellation of McGill College." Owing to persistent opposition by the leaders of one section of the people to any system of governmental education and to the refusal by the Legislature to make the grants of land and money which had been promised, the proposed establishment of the provincial university by the British Government was abandoned.

In so far as the McGill College was concerned, however, the Royal Institution at once took action by applying for a Royal Charter. Such a charter was granted in 1821, and the Royal Institution prepared to take possession of the estate. But, owing to protracted litigation, this was not surrendered to them till 1829. Commencing then the work of teaching with two faculties, Arts and Medicine, the record of the first thirty years of the University's existence is an unbroken tale of financial embarrassment and administrative difficulties. The charter was cumbrous and unwieldy, and unsuited to a small college in the circumstances of this country, and the University, with the exception of its medical faculty, became almost extinct. But after thirty years the citizens of Montreal awoke to the value of the institution which was struggling in their midst. Several gentlemen undertook the responsibility of its renovation, and, in 1852, an amended charter was secured. The

Governor-General of Canada for the time being, Sir Edmund Head, became interested in its fortunes, and in 1855, with the advent of a new Principal, an era of progress and prosperity began.

A Course in Law was begun in connection with the Faculty of Arts, in 1848, and a separate Faculty was established in 1853. The Faculty of Applied Science was not regularly organized till 1878, but a course in Engineering, which was amplified into the Department of Practical Science in 1871, was given under the Faculty of Arts as far back as 1856. The Faculty of Agriculture was established in 1907.

Government of the University.

By the amended Charter "the Governors, Principal, and Fellows" of the University are constituted a body politic and corporate, with all the usual rights and privileges of corporate bodies. The supreme authority, however, is vested in the Crown, and is exercised by His Excellency the Governor-General of Canada, for the time being, as **Visitor.** This is a special and important feature of the constitution, for, while it gives the University an imperial character and removes it at once from any merely local or party influence, it secures the patronage of the head of the political system of the country.

The **Governors** of the University are the members of the Royal Institution for the Advancement of Learning, above mentioned, and in them are vested the management of finances, the passing of University statutes and ordinances, the appointment of professors, and other important duties. Their number is limited to fifteen, and vacancies are filled by the nomination of the remaining members, with the approval of the Visitor. The President of the Board of Governors is, *ex-officio,* Chancellor of the University.

The **Principal** is the academic head and chief administrative officer. He is appointed by the Board of Governors (of which body he is a member, *ex-officio*). He also holds the office of Vice-Chancellor of the University.

The **Fellows** (53 in number), are selected with reference to the representation of all the faculties and departments of the University, and of the graduates, affiliated colleges, and other bodies.

The Governors, Principal and Fellows, together constitute the **Corporation,** the highest academical body. Its powers are fixed by statute, and include the framing of all regulations touching courses of study, matriculation, graduation, discipline and the granting of degrees.

The Principal, the Deans of the several Faculties, the Professors and Associate Professors, and other members, not exceeding ten in number, of the teaching staff, constitute the Academic Board of the University, with the duty of considering such matters as pertain to the interests of the University as a whole, and of making recommendations concerning the same.

RELATION TO OTHER INSTITUTIONS.

Incorporated and Affiliated Colleges.

Students in Affiliated Colleges are matriculated in the University, and may pursue their course of study in the Affiliated College, or in part in the Affiliated College, and in part in McGill College, as the case may be, and may come up to the University examinations on the same terms as the students of McGill College.

A certificate of "Literate in Arts" will be given to students of Affiliated Colleges who have completed two years' study in one of these Colleges, as undergraduates of McGill University, and have passed the prescribed examinations.

Macdonald College.—This is an incorporated college of the University, situated at Ste. Anne de Bellevue, about twenty miles from Montreal. Courses leading to the Bachelor's and Master's Degrees in Agriculture are under the control of the Corporation of McGill University; all the short term courses in Agriculture, as well as the courses in Domestic Science, are under the direction of the Macdonald College Committee; and those for diplomas to teach in the Province of Quebec are subject to the immediate supervision of the Teachers' Training Committee. A description of the College buildings and full information as to courses, terms of admission, fees, etc., are given under "Macdonald College."

The McGill University College of British Columbia, Vancouver, B.C. and Victoria, B.C. In the main college at Vancouver courses are conducted up to the end of the Third Year in the Faculty of Arts and of the Second Year in the Faculty of Applied Science. In the branch at Victoria students are able to complete the work of the first two years in Arts. Detailed information is given in another part of the Calendar (see index).

Mount Allison and Acadia Universities, are also affiliated to the extent that students who have completed the Two-Year Course in Engineering given by these universities are admitted directly to the Third Year in the Faculty of Applied Science of McGill University.

Affiliated Theological Colleges.

Students of the following affiliated Theological Colleges may attend the courses of study in Arts, either as undergraduates or as partial students, with such facilities in regard to exemptions as may be agreed on :—

The Congregational College of Canada, Montreal.—Principal, Rev. E. M. Hill, D.D., 58 McTavish St.

The Diocesan College of Montreal.—Principal, Rev. E. I. Rexford, M.A., LL.D., 201 University St.

The Presbyterian College, Montreal, in connection with the Presbyterian Church in Canada.—Principal, Rev. John Scrimger, M.A., D.D., 69 McTavish St.

The Wesleyan College of Montreal.—Principal, Rev. W. I. Shaw, D.D., LL.D., 228 University St.

Calendars of each of the above Colleges and all necessary information may be obtained on application to the Principals.

Affiliation to Other Universities.

The University is affiliated to the universities of Oxford, Cambridge and Dublin, under conditions which allow an undergraduate who has taken two years' work, and has passed the Second Year sessional examination in Arts, to pursue his studies and take his Degree at any of those universities on a reduced period of residence.

FACULTIES AND COURSES.

The educational work of the University is carried on in McGill College, the Royal Victoria College for Women, and other University Buildings in Montreal; and also in Macdonald College at Ste. Anne de Bellevue; and in the McGill University College of British Columbia, with branches at Vancouver and Victoria.

The several courses offered by the University are as follows:—

In the Faculty of Arts.

For the Degree of Bachelor of Arts.
" " " " Bachelor of Science.
" " Diploma of Commerce.

In the Faculty of Applied Science.

For the Degree of Bachelor of Architecture (B. Arch.)

Courses leading to the Degree of Bachelor of Science (B.Sc)., in the Departments of Chemistry, Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Metallurgy, Metallurgical Engineering, Mining Engineering, and Railways.

In the Faculty of Law.

For the Degree of Bachelor of Civil Law (B. C. L.)

In the Faculty of Medicine.

For the Degree of Doctor of Medicine and Master of Surgery (M.D., C.M.)

Course in Dentistry for the Degree of Doctor in Dental Science (D.D.S.)

Course for the Diploma of Public Health.

In the Graduate School.

Courses leading to the Degrees of Master of Arts, Master of Science and Doctor of Philosophy.

In Macdonald College.

For the Degree of Bachelor of Science in Agriculture.
Other courses in the School of Agriculture.
Courses in the School of Household Science.
The several courses for Teachers' Diplomas.

In the Conservatorium of Music.

For the diploma of Licentiate in Music, and the several Grade examination certificates.

Courses leading to the Degrees of Bachelor of Music (Mus. Bac.) and Doctor of Music (Mus. Doc.).

General.

Military Courses for Commissions in the British Army and in the permanent force in Canada.

The Faculty of Arts.—The undergraduate courses of study which lead to the Degree of B.A. or of B.Sc., extend over four sessions of about seven and a half months each. For further particulars regarding these courses see page 95. *et seqq.* In the Second, Third and Fourth Years extensive options are provided, and certain exemptions are also allowed to professional students.

The undergraduate course in Arts can be taken along with the undergraduate course in Medicine, in seven years, or with that in Applied Science in six years. (See page 111.)

The Degrees of B.A. and B.C.L. can be obtained in six years and, under special circumstances, in five years. (See page 113.)

A certificate of Literate in Arts is given along with the Degree in Medicine, Applied Science, or Law, to candidates who have completed two years in Arts before entering the professional Faculty.

This certificate of Literate in Arts is also given to students of Affiliated Colleges who have completed the work of the first two years and have passed the prescribed examinations, as undergraduates of McGill University.

The 'Diploma of Commerce can be obtained after a two years' period of study. For fuller particulars see page 176.

The courses in Arts are open to women (who are educated mainly in separate classes) on equal terms with men. Residential accommodation for women students is provided in the Royal Victoria College.

Holders of the Degree of B.A. from this University are admitted to the study of the learned professions, without preliminary examination, in the Provinces of Canada, and in Great Britain and Ireland, and elsewhere. They will also be granted Academy diplomas to teach in the Province of Quebec, provided they have passed an examination in pedagogy and have taught, under supervision, for the time required by law.

The Faculty of Applied Science.—The undergraduate courses of study, one leading to the Degree of B.Arch. and the others to that of B.Sc., extend over four sessions, averaging (with summer sessions) about eight months each, and provide a thorough professional training in the Departments mentioned above. For further information see pages 186 *et seqq.*

The undergraduate course in Arts can be taken along with the undergraduate course in Applied Science in six years. (See page 111.)

The Faculty of Law.—The undergraduate course extends over three sessions of eight months each, and leads to the Degree of Bachelor of Civil Law (B.C.L.). Full particulars are given on pages 282 *et seqq.*

The undergraduate course in Arts can be taken along with the undergraduate course in Law in six years and, under special circumstances, in five years. For particulars, see page 113.

The Faculty of Medicine.—The undergraduate course of study leading to the Degree of M.D., C.M., extends over five sessions of eight months each, and that leading to the Degree of Doctor in Dental Science extends over four sessions of the same length. For further information see page 338.

The undergraduate course in Arts can be taken along with the undergraduate course in Medicine in seven years. (See page 112.)

The course in Public Health and Sanitary Science is open to those only who have graduated in Medicine, or who possess some other qualification for practice. Generally speaking, it occupies a period of three months.

The Faculty of Agriculture.—The course of study for undergraduates extends over four sessions of about seven months each, and leads to the Degree of Bachelor of Science in Agriculture.

The course in Agriculture is given in Macdonald College at Ste. Anne de Bellevue and aims to provide a thorough theoretical and practical training in the several branches of the science. For fuller information regarding this and other courses in Agriculture see under "Macdonald College."

The Course in Architecture.—This occupies a period of four years and leads to the Degree of Bachelor of Architecture. The work of the First Year is divided between the Faculties of Arts and Applied Science. During the last three years studies are carried on in architecture, building construction, ornament and decoration, drawing, designing, planning, professional practice, sanitation and heating, structural engineering, specifications, etc.

The Course for the Diploma of Commerce.—This course is not designed merely to impart instruction of a purely technical character. Its object is rather to develop capacity than to give special information. Nevertheless, stress is laid upon those subects, a knowledge of which is a necessity for business men, and the character of the instruction and the class methods adopted are specially suited to the end in view. Requirements for entrance are given on page 21 and a list of

the subjects taken up during the two years of the course will be found on page 177.

The School for Teachers in Macdonald College.—This institution provides a practical and thorough training in the art and science of teaching. It is, especially, a training school for those who wish to obtain Elementary or Model School diplomas to teach under the Protestant Committee of the Council of Public Instruction, Quebec. For full information as to requirements for admission and the programme of studies for the several diplomas, application should be made to the Head of the School.

Holders of Model School diplomas from this School are encouraged by the offer of bursaries (see page 53) to enter the classes in the Faculty of Arts for the Academy diploma and for the Degree of B.A.

The School of Household Science in Macdonald College. The courses offered are as follows:—

(a) Several short courses of three months each.
(b) A one-year Home-Maker course.
(c) A two-year House-Keeper course leading to a diploma.

The Conservatorium of Music.—Thorough instruction in all branches of music is given in the Conservatorium of Music. Students are admitted as *Regular Students* taking an organized course leading to the diploma of Licentiate in Music or the Degree of Bachelor of Music (see page 179), or as *Partial Students,* who, under certain conditions and after examination, can obtain certificates bearing the imprimatur of the University. Full details can be obtained on application to the Secretary of the McGill Conservatorium of Music, 323 Sherbrooke St. W., Montreal.

The Course in Military Science.—This course can be taken by undergraduates in Arts, Applied Science and Law.

The subjects and the number of lectures given in each are as follows:—

GROUP A. (1) Military History and Strategy, 28 lectures.
(2) Tactics, 28 lectures.

GROUP B. (1) Military Engineering, 20 lectures, (reduced by one-third in the case of students in the Civil Engineering Course in Applied Science).

(2) Military Topography, 20 lectures, (reduced by one-third in the case of students in the Civil Engineering Course in Applied Science).

GROUP C. (1) Military Law, 12 lectures.

(2) Military Administration, 12 lectures.

The examination may be taken in two parts, Groups A and C or Groups B and C at one time and the remaining Group at another. On passing this examination and obtaining a satisfactory certificate of attachment to a regular unit for 12 weeks (6 weeks in two consecutive years or 12 weeks in one), graduates in any of the Faculties above named will be eligible for nomination to commissions in the British Army, or the permanent force in Canada. Fuller particulars are given on page 183.

The Graduate School.—In the Graduate School, courses of instruction are provided leading to the following Degrees in course:—Master of Arts (M.A.); Master of Science (M.Sc.); and Doctor of Philosophy (Ph.D.). Full information as to admission and departments in which studies are offered will be found under "Graduate School" (see index), and can also be obtained from Dr. F. D. Adams, Chairman of the Committee on Graduate Studies.

To this Committee are also submitted all applications for the Degrees of D.Sc. and D. Litt, and these Degrees are granted only on their recommendation.

DEGREES.

The Degrees conferred by the University (as may be gathered from the foregoing information) are as follows:—B.A., B.Sc., B. Arch., B.C.L., B.S.A., Mus. Bac., M.D. C.M., D.D.S., D.C.L., Mus. Doc., M.A., M.Sc., Ph.D., D.Sc., D. Litt., and LL.D. (Honorary.) For further particulars as to requirements for each see page 81.

CLASSES OF STUDENTS.

There are four classes of students in the University:—

(1) Graduates—students who have previously obtained an ordinary Degree at McGill, or elsewhere, and who are now pursuing courses for the Master's Degree (in Arts or Applied Science), or for the Degree of Ph.D.

(2) Undergraduates—students who have passed the matriculation examination and who are now pursuing a course leading to a Degree or Certificate in one or other of the several Faculties. In order to obtain undergraduate standing, a candidate must have passed the matriculation examination of the University or some other examination accepted in lieu thereof (see page 19.)

(3) Conditioned Students—those with defective entrance qualifications who are pursuing a full undergraduate course of study and at the same time seeking to obtain undergraduate standing. The conditions must be removed before the student can be admitted to the Second Year. (See Reg. 5, page 18.)

(4) Partial Students—comprising all those who, not belonging to one of the above classes, are taking a partial course of study in the University. Except as provided below, such students may, subject to the approval of the Professor, attend any class without previous examination.

Persons who wish to take a partial course in the First Year of the Faculty of Arts must, if under the age of eighteen years, first present to the Dean certificates of having taken a satisfactory course of school instruction. In order to obtain admission to the classes in French, intending students must have passed the University matriculation examination, or an equivalent examination, in that subject.

Partial students who subsequently obtain undergraduate standing by passing the matriculation examination may, as undergraduates, be exempted, at the discretion of the Faculty, from any particular course or courses of lectures which they may have attended as partial students and in which they have passed the sessional examinations.

Partial students who intend to proceed to a Degree will be expected to employ the greater part of their time in qualifying themselves to pass the matriculation examination. (The classes provided for the instruction of conditioned students in matriculation subjects will be available also for partial students who are so qualifying.) In this connection the several Faculties are expected to discourage partial students who are qualifying for matriculation, from attempting more work than they are able to undertake, consistently with the requirements of the matriculation examination, and the Secretary of the Matriculation Board will, after the September examination, send to the Dean of each Faculty a report of the standing of those candidates who have failed in the matriculation examination, for the guidance of the Faculties in connection with the admission of partial students to the First Year.

Except under special circumstances, no student under the age of sixteen is admitted to the First Year courses in Arts, Applied Science or Medicine, or under the age of seventeen to the Second Year, and no student under the age of seventeen is admitted to the course in Law.

All students are required to attend lectures at the University buildings in Montreal, at Macdonald College (for the courses in Agriculture), or at one of the Affiliated Colleges.

THE ACADEMIC YEAR.

The University Year or Session is divided into two terms, the first extending to the Christmas vacation, and the second from the expiry of the Christmas vacation to the date appointed for the meeting of Convocation for the conferring of Degrees.

The Session 1910-1911 will commence in all Faculties on Saturday, October 1st, 1910. It will end in the Faculty of Medicine about June 1st, 1911, and in the other Faculties on Friday, May 12th, 1911.

Two matriculation examinations (for entrance to all Faculties) will be held in 1910, the first commencing on Monday, June 13th, and the second on Friday, September 23rd.

Second Year Exhibition, Third Year Scholarship and Supplemental Examinations in Arts will begin on Friday, September 23rd. (For time table, see first part of Calendar.)

Supplemental examinations in Applied Science will be held as follows:—

For students attending the Survey School—August 31st to September 3rd, 1910, approximately.

For students not in attendance at the Survey School—September 26th to 29th approximately.

The field work in Surveying for 1910 will commence on Monday, September 5th. The summer school in Mining is always held at the end of each session.

The annual University Lecture will be delivered on Thursday, October 6th, 1910.

Summer Classes. During the months of May and June, a series of Summer Classes is conducted, intended mainly, in the first instance, to meet the requirements of students in the first two years of their course. The subjects offered in the Faculty of Arts are English, Latin, Greek, Mathematics, Physics, Chemistry, Logic, French, German, Elementary

Animal Biology and Botany. The fees payable are stated on page 73. Classes will also be conducted in the following subjects of the First Year in the Faculty of Applied Science, if a sufficient number of students apply: Descriptive Geometry, Freehand Drawing, Lettering, Mathematics, Physics, Shopwork. For fees, see page 75.

The Summer School for training librarians will open on Monday, June 20th, 1910. The course will last four weeks, of 39 hours each, and is strictly elementary.

Its object is, firstly, to aid librarians of small libraries and library assistants to study those technical subjects, without the knowledge of which no librarian can make even the smallest library as influential and as useful as it ought to be; secondly, to give the students a broader view of what the library should stand for in the community.

The principal subjects of study will be (a) *Classification*—based on Cutter's Expansive Classification, with practice work on selected books; (b) *Cataloguing*—the preparation of a dictionary catalogue on cards, including the various forms of author-entry, title and subject-entry, analytics and references; (c) *Reference Work*—discussion of books used in reference work, with problems; (d) *Principles of book selection*, with problems. Other topics including binding, library buildings, travelling libraries, and work with schools and children will receive attention. Anyone who holds a library position or appointment will be admitted without examination.

Fee for the course $5.00: Supplies and stationery about $3.00.

A Summer School in French will be conducted during the month of July. Circulars containing precise information may be obtained from the Registrar.

For compulsory summer work in the Faculty of Applied Science see page 190.

ENTRANCE REQUIREMENTS.

All matters regarding matriculation are under the control of a Matriculation Board, which is constituted as follows:

(a) The Heads of all Departments which may include matriculation subjects, *ex-officio*.

(b) The Deans of the several Faculties and the Registrar of the Faculty of Medicine.

(c) Such other members of the teaching staff (or others), as may be appointed annually by Corporation, the Faculty of Arts being given the power, in any emergency, to make an appointment, *pro tempore*.

I. Regulations.

1. Matriculation examinations (for entrance into all Faculties) are held only in June and September—in June at McGill College and (on application) at local centres; in September, at McGill College and the McGill University College of British Columbia, in Vancouver and Victoria.

ALL INQUIRIES RELATING TO THE EXAMINATIONS SHOULD BE ADDRESSED TO THE REGISTRAR OF THE UNIVERSITY.

For the convenience of candidates in Great Britain, who are not otherwise qualified for entrance, an examination will be held regularly in London, Eng., each year, commencing on, or about, the 12th of June. Full information regarding the exact date and place of the examination, fee, etc., may be obtained from Rev. T. C. Fry, D.D., the School House, Berkhamsted, Herts., Eng., who has kindly undertaken to act as the Honorary Representative of the University in England.

2. Every candidate for examination is required to fill up an application form and return the same with the necessary fee (for which see page 71), one month before the examination begins. Blank forms may be obtained from the Registrar.

No applications for examination in June will be received after May 17th.

3. In order to obtain an examination at a local centre, any Headmaster or other person must, before May 1st, submit to the Registrar the name of some suitable person, preferably a university graduate, who is willing to act as deputy examiner, i.e., receive the questions, hold the examinations and forward the answers to Montreal. The University will be responsible for no other local expenses than the payment of the deputy-examiners.

4. The matriculation examination may be taken in two parts, candidates being free to make such a division of the subjects as may best suit their convenience. Credit will be given for any subjects passed at the first attempt, but unless all the requirements are completed, or at least all but two subjects, at the second, the whole will have to be taken over again, English Grammar, History, and Arithmetic, if once passed, being, however, excepted. For the purposes of this regulation the June and September examinations shall be counted as one.

5. Candidates who at the September examination fail in a small part only of the whole examination may, if their general standing is sufficiently high, be allowed to enter the First Year as conditioned students. Those who are conditioned in a language must attend a special tutorial class during their first session, for which a fee of $10 is exigible. Any student, so conditioned, who fails to attend this class with regularity, will not be allowed to present himself for examination. The standing of a conditioned student will not as a rule be granted to any who have not presented themselves for examination in September, nor to those who have not shown sufficient knowledge of the subject or subjects in which they failed to justify the examiners in making a favorable recommendation. Conditioned students can obtain full undergraduate standing by passing at a subsequent June or September matriculation examination in the subject or subjects in which they failed, and will not be permitted to enter the Second Year of their course of study until they have satisfied all matriculation requirements.

6. When two or more books or subjects are prescribed for one examination it is necessary to pass in each.

7. A candidate in order to pass must obtain at least 40 per cent. of the total number of marks allowed for each subject.

8. In view of the precautions taken to prevent mistakes, no request for the re-examination of a paper shall be granted except on payment of a fee of one dollar. No appeal from the valuation of a paper written at the June examination will be entertained after September 1st, following.

9. Certificates of having passed the following examinations will, if submitted to the Registrar, be accepted *pro tanto* in lieu of the matriculation examination, *i.e.*, in so far as the subjects and standard are, to the satisfaction of the Board of Matriculation examiners, the same as or equivalent to those required for the matriculation examination of this University. Candidates offering certificates which are not a full equivalent will be required to pass the matriculation examination in such of the required subjects as are not covered thereby:—

Province of Quebec.

The Departmental Examination of Grade II Academy.
The University School Leaving Examination.
The Examination for the Model School Diploma, under certain conditions.

Province of Ontario.

The Junior and Senior Teachers' Certificate Examinations.
Junior and Senior Matriculation Examinations.

Province of New Brunswick.

The Examinations for First Class, Superior and Grammar School Licences.

Province of Nova Scotia.

The Leaving Examinations of Grades X, XI and XII.

Province of Prince Edward Island.

The Examinations for First and Second Class Teachers' Licences.

The First and Second Year Examinations of Prince of Wales College.

Province of British Columbia.

The Junior, Intermediate and Senior Grade Examinations.

Alberta and Saskatchewan.

The Departmental Examinations for Standards VII and VIII.

Newfoundland.

The Intermediate and Associate Grade Examinations.

Great Britain.

The School and Matriculation Examinations of the Universities of Oxford, Cambridge and London, and the leaving Examinations of the Scotch Education Department.

Applications for exemption from the matriculation examination, based upon certificates of having passed examinations other than those above mentioned, will be considered as occasion may require by the Board of Matriculation Examiners. Every such application must be accompanied by certificates and full particulars, and should be addressed to the Registrar.

II. Fees.

See page 71.

III. Subjects of Examination.

FACULTY OF ARTS.

(*For candidates intending to take the B.A. course.*)

1. English Grammar.
2. History and Geography.
3. Arithmetic.
4. English Composition.

5. English Literature.
6. Latin *or* Greek.
7. One of the following:
   Greek *or* Latin (the one not already chosen),
   French, German.
8. Algebra, Part I.
9. Geometry, Part I.
10. One of the following:
    Physiography, Botany, Chemistry, Physics, a Language not already chosen.

(*For candidates intending to take the B.Sc. course in Arts.*)

1. English Grammar.
2. History and Geography.
3. Arithmetic.
4. English Composition.
5. English Literature.
6. Algebra, Part I.
7. Geometry, Part I.
8. French.
9. Latin *or* German *or* Physics.
10. One of the following:
    Physiography, Botany, Chemistry, Physics, (if not already chosen), Latin, (if not already chosen), Greek.

Candidates who intend ultimately to proceed to the study of Medicine are reminded that for Medical Registration it is necessary to take Latin.

(*For candidates entering on the course for the Diploma of Commerce.*)

One of the following examinations:—

1. The ordinary matriculation examination for the B.A. or the B.Sc. Course.

2. An examination on the following subjects:—

1. **English Grammar.**
2. **History and Geography.**
3. **Arithmetic.**
4. **English Composition.**
5. **English Literature.**
6. **French,** including oral examination (pass standard 50 per cent.)
7. **Algebra, Part I.**
8. **Geometry, Part I.**
9. **Book-Keeping.**
10. One of the following, viz:
    Physiography, Botany, Chemistry, Physics.

Holders of Model School diplomas who are certified by the Head of the School of Education of Macdonald College to have taken 75 per cent. of the total marks at their final examinations, with not less than 50 per cent. of the marks in (1) Mathematics, (2) French, and (3) Latin or Greek, respectively, will be admitted without further examination as undergraduates of the First Year in Arts.

Nine Exhibitions, ranging in value from $100 to $200 each, will be awarded on the result of the matriculation examination for entrance to the Faculty of Arts in June, 1910, and also in June, 1911; and five, each of the value of $150, and three Scholarships of the annual value of $150 each, tenable for two years, will be awarded on the result of an examination on special work. Full particulars are given on pages 49 to 53.

The P. S. Ross Exhibition of $100 given through the Ottawa Valley Graduates' Society by Mr. P. D. Ross, B.A.Sc., may be competed for by candidates from the Ottawa Valley for entrance to any Faculty. See page 48.

FACULTY OF APPLIED SCIENCE.

(For all courses leading to the Degree of B.Sc. in Applied Science.)

1. English Grammar.
2. History and Geography.
3. Arithmetic.
4. English Composition.
5. English Literature.
6. One of the following:
   French, German, Latin, Greek.
7. Algebra, Parts I and II.
8. Geometry, Parts I and II.
9. Trigonometry.
10. One of the following:
    Physiography, Botany, Chemistry, Physics, a Language not already chosen.

(For the course leading to the Degree of B. Arch.)

1. English Grammar.
2. History and Geography.
3. Arithmetic.
4. English Composition.
5. English Literature.
6. French.
7. One of the following:
   Greek, Latin, German, Chemistry, Physics.
8. Algebra, Part I.
9. Geometry, Part I.
10. Freehand and Geometrical Drawing.

In the case of No. 10, applicants may send specimens of their work to the Head of the Department or make arrangements with him to undergo a test. No examinations taken elsewhere are accepted as equivalents for this subject.

French-speaking candidates for matriculation in this Faculty will be allowed to take examinations in French

equivalent to those required in English. (For particulars, see page 31.)

The Canadian Railway Club has established a Scholarship to be competed for by sons of members of the club, and to be awarded to that one who obtains the highest standing at the matriculation examination for entrance on the B.Sc. course in Applied Science.

Scholarships covering four years' tuition in the Faculty of Applied Science are also awarded annually, on the result of the matriculation examination, by the Grand Trunk and Canadian Pacific Railway Companies. These are open for competition to apprentices and other employees of the Companies under twenty-one years of age, as well as to minor sons of employees. For full particulars as to number of scholarships offered, conditions, etc., application should be made, in the case of the Grand Trunk Railway, to Mr. R. S. Logan, Assistant to the Second Vice-President, G.T.R. Offices, Montreal; and, in the case of the Canadian Pacific Railway, to Mr. C. H. Buell, office of the Vice-President, C.P.R. Offices, Montreal.

The P. S. Ross Exhibition of $100 (see page 48) is open to candidates from the Ottawa Valley for entrance to any Faculty.

FACULTY OF MEDICINE.

1. **English Grammar.**
2. **History and Geography.**
3. **Arithmetic.**
4. **English Composition.**
5. **English Literature.**
6. **Latin.**
7. **Algebra, Part I.**
8. **Geometry, Part I.**
9. **Chemistry.**
10. **Physics.**
11. One of the following:
    Greek, French, German.

In addition to the certificates mentioned on page 19, the following are accepted in lieu of the matriculation examination for entrance in Medicine, provided they cover Latin:

The Degree of Bachelor of Arts obtained from any recognized university.

A certificate of having passed the examination of a Provincial Medical Council.

In the case of candidates from the United States, a certificate of having passed a State or University examination fully equivalent to the matriculation examination required for entrance in this University.

The examination requirements for those who intend to practise Medicine in any of the Provinces of Canada will be learned by corresponding with the Registrars of the several Provincial Medical Councils. (For names and addresses see page 300.)

The P. S. Ross Exhibition (See page 48) is open to candidates from the Ottawa Valley for entrance to any Faculty.

FACULTY OF LAW.

1. **English Grammar.**
2. **History and Geography.**
3. **Arithmetic.**
4. **English Composition.**
5. **English Literature.**
6. **Latin.**
7. **French.**
8. **Algebra, Part I.**
9. **Geometry, Part I.**
10. One of the following:
    Physiography, Botany, Chemistry, Physics, Greek, German.

Candidates must reach a high standard in Latin and French.

In addition to those who qualify on the certificates mentioned on page 19, Bachelors of Arts, Science, or Letters of any Canadian or British University (see R.S.Q., 3503a) are admitted without examination.

No candidate domiciled in the Province of Quebec shall be admitted as an undergraduate in the Faculty of Law who shall not, in addition to other matriculation requirements, possess an adequate knowledge of French. Every candidate for admission as an undergraduate, whether exempt from the matriculation examination or not, shall be specially examined in this subject by an examiner appointed by Corporation, on the recommendation of the Matriculation Board, before being allowed to enter, and shall not be considered to possess an adequate knowledge unless he can speak the language with fair fluency and can translate with ease a passage of English into French.

Candidates who intend to practise Law or to be admitted to the notarial profession in the Province of Quebec are referred to the statutory requirements, as shown on page 296 under Faculty of Law. If they are not graduates they should pass the examination for admission to study required by the Council of the Bar or by the Board of Notaries, as the case may be, before seeking to matriculate. In that case they will be matriculated without examination.

FACULTY OF AGRICULTURE.

(*For the course leading to the Degree of B.S.A.*)

1. English Grammar.
2. History and Geography.
3. Arithmetic.
4. English Composition.
5. English Literature.
6. Latin *or* French *or* German.
7. Algebra, Part I.
8. Geometry, Part I.
9. Any two of the following:
   Botany, Chemistry, Physics, Zoology.

A matriculation certificate for entrance to any other Faculty of the University will also be accepted.

For the next two or three years, however, candidates for the Degree will be allowed to proceed on satisfying the following conditions:—

(1) Pass before entrance in English Grammar ,History and Geography, Arithmetic and English Composition, as prescribed for the regular matriculation examination of the University.

(2) Obtain 60 per cent. of the marks in English and 50 per cent. in general proficiency in an examination on the work of the Two-Year Course, and be granted the permission of the Faculty to continue.

DEPARTMENT OF MUSIC.

(For the Course leading to the Degree of Bachelor of Music.)

1. **English Grammar.**
2. **History and Geography.**
3. **Arithmetic.**
4. **English Composition.**
5. **English Literature.**
6. **French** *or* **German** *or* **Italian.**
7. **Rudiments of Music** (musical intervals, scales, clefs, time signatures, construction of chords, elementary harmony to chord of dominant seventh.)

Optional:—Algebra, Part I and Geometry, Part I. A pass in either, or both, of these subjects will help to make up for deficiency in any others.

IV. Requirements in each Subject.

English Grammar.*

Main facts in connection with the history of the language; etymology and syntax. A good knowledge of parsing and

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*A candidate may obtain exemption from examination in this subject on presentation of a certificate from the Principal of an approved school, or other recognized official authority, to the effect that he has met the requirements by passing satisfactory examinations fully up to the standard prescribed for matriculation.

analysis is essential. West's English Grammar for Beginners is recommended as a text-book.

One examination paper of an hour and three-quarters.

History and Geography.*

Candidates will be required to show a somewhat intimate acquaintance with the History of England, from 1485 to the present time. While any text-book written for the upper forms of schools may be used in preparation for the examination, Gardiner's Outline of English History (Longmans) is recommended.

The Geography required will be that relating to the History prescribed.

One examination paper of two hours.

Arithmetic.*

All the ordinary rules, including square root, and a knowledge of the metric system.

One examination paper of two hours.

English Composition.

As in Sykes's Elementary Composition, with an essay on some subject connected with the works prescribed in Literature. Frequent practice in composition is essential.

One examination paper of two hours.

English Literature.

1910—Any of the following: Shakespere's Merchant of Venice; Nineteenth Century Prose (ed. Cunliffe), pp. 1-126, with notes (Copp, Clark Co.); Poems of the Romantic Revival (Copp, Clark Co.), pages 1 to 82 with notes; Tennyson's Select Poems, editor Alexander (Copp, Clark Co.).

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* A candidate may obtain exemption from examination in this subject on presentation of a certificate from the Principal of an approved school, or other recognized official authority, to the effect that he has met the requirements by passing satisfadtory examinations fully up to the standard prescribed for matriculation.

In 1911 Julius Cæsar will be substituted for The Merchant of Venice. The other requirements will remain as above.

An alternative paper will be set on the work specified in English for the Junior matriculation examination of the Province of Ontario.

Spelling will be tested by the candidates' papers in English Composition and Literature. Examiners in other subjects will also take note of mis-spelled words and will report flagrant cases to the Board.

One examination paper of two hours.

Greek.

For 1910 and 1911—

TEXTS.—Xenophon, Anabasis, Book 1, Chaps. 1 to 8, or Farnell's "Tales from Herodotus" (Macmillan's Elementary Classics), Chaps. VIII to XVI.

GRAMMAR.—Knowledge of grammar will be tested by translation and composition, and by grammatical questions based on the specified texts.

TRANSLATION AT SIGHT from Greek into English.

COMPOSITION.—Translation into Greek of detached English sentences and easy narrative based on the prescribed texts.

Two papers of two hours each will be set; one on composition and translation at sight, the other on prescribed texts and grammar.

Alternative questions will be set on the work prescribed in Greek for the Junior matriculation examination of the Province of Ontario, if this differs from that specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

Latin.

For 1910 and 1911—

TEXTS.—Cæsar, De Bello Gallico, Book IV, Chap. 20 to the end, and Book V; Ovid, Stories from the Metamorphoses

(as in Gleason's "A Term of Ovid," American Book Company), lines 1 to 670.

GRAMMAR.—Knowledge of grammar will be tested by translation and composition, and by grammatical questions based on the specified texts.

TRANSLATION AT SIGHT from Latin into English.

COMPOSITION.—Translation into Latin of detached English sentences and easy narrative based on the prescribed texts.

Two papers of two hours each will be set; one on composition and translation at sight, the other on prescribed texts and grammar.

Note.—The Roman method of pronouncing Latin is recommended.

An alternative paper will be set on the Latin texts prescribed for the Junior matriculation examination of the Province of Ontario, if these differ from those specified above.

At the September examination other texts in Latin equivalent to those specified may be accepted, if application be made to the Registrar at least a month before the day of the examination.

French.

GRAMMAR.—A thorough knowledge of French accidence and of those points of syntax which are of more frequent occurrence in an ordinary easy style.

TRANSLATION AT SIGHT into English of a French passage of moderate difficulty.

TRANSLATION AT SIGHT into French of detached English sentences and an easy English passage. Material for such translation is selected with a view to testing the candidate's general knowledge of French Grammar. Candidates are required to pass in English-French translation as well as in the paper as a whole.

Books recommended:—Bertenshaw's French Grammar (Longmans), and Cameron's Elements of French Prose Composition (Holt & Co.).

One examination paper of two hours

French-speaking candidates for matriculation in the Faculty of Applied Science will, if they offer French in place of English (see page 24), be examined in the following:—

FRENCH COMPOSITION, DICTATION, GRAMMAR (Larousse, Grammaire Supérieure).

FRENCH LITERATURE:—Corneille, Le Cid; Racine, Andromaque).

FRENCH HISTORY:—(A. Rambaud, Histoire de la Civilisation Française.)

(*For Special Regulation re Matriculation in Law, see page 26.*)

German.

GRAMMAR.—A thorough knowledge of German accidence and of the syntax of the topics treated in Lessons 46, 47, 57, 58, 59 and 60 of the Joynes-Meissner Grammar, and as presented in the Joynes-Meissner, Van der Smissen, or any other German Grammar of equally good standing.

TRANSLATION AT SIGHT into English of a German passage of moderate difficulty.

TRANSLATION INTO GERMAN of detached English sentences and of an easy English passage. Material for such translation is selected with a view to exemplifying the points of grammar included within the above limits.

TEXTS.—(Translation and grammatical study):—

For 1910 and 1911.—Volkmann, Kleine Geschicten (Heath & Co.); Stille Wasser, ed. Bernhardt (Heath & Co.). It is recommended that candidates should read the prescribed texts in the above order, beginning in Volkmann's Kleine Geschicten with Himmelsschlüssel and Siebenmeilenstiefel.

The Ontario Junior matriculation requirements in German will be accepted in place of the texts specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

One examination paper of two hours.

Algebra, Part I.

Elementary rules, involution, evolution, fractions, indices, surds, simple and quadratic equations of one or more unknown quantities; as in Hall and Knight's Elementary Algebra to the end of surds (omitting portions marked with an asterisk), or as in similar text-books.

One examination paper of two hours.

Algebra, Part II.

The three progressions, ratio, proportion, variation, permutations and combinations, binomial theorem, logarithms, theory of quadratic equations, as in the remainder of Hall and Knight's Elementary Algebra (omitting Chaps 40 to 43 inclusive), or as in similar text-books.

One examination paper of an hour and three-quarters.

Geometry, Part I.

Euclid's Elements, Books I, II, III, with easy deductions; or an equivalent.*

An alternative paper will be set on the Ontario Junior matriculation requirements in this subject.

One examination paper of two hours.

In 1912 and thereafter it is proposed that the requirements in Geometry, Part I, shall be as follows:—

The paper shall contain questions on practical and on theoretical geometry. Every candidate shall be expected to answer questions in both branches of the subject.

The questions on practical geometry shall be set on the constructions contained in the annexed Schedule A, together with easy extensions of them. In cases where the validity of a construction is not obvious, the reasoning by which it is justified may be required. Every candidate shall provide

* The text-book at present used in McGill University, and also authorized for use in the schools of the Province of Quebec, is Hall and Stevens's Euclid (Macmillan & Co.). Teachers will find Hall and Stevens's School Geometry a useful adjunct as far as regards practical applications.

himself with a ruler graduated in inches and tenths of an inch, and in centimetres and millimetres, a set square, a protractor, compasses and a hard pencil. All figures should be drawn accurately. Questions may be set in which the use of the set square or of the protractor is forbidden

The questions on theoretical geometry shall consist of theorems contained in the annexed Schedule B, together with questions upon these theorems, easy deductions from them, and arithmetical illustrations. Any proof of a proposition shall be accepted which appears to the examiners to form part of a systematic treatment of the subject; the order in which the theorems are stated in Schedule B is not imposed as the sequence of their treatment.

In the proof of theorems and deductions from them, the use of hypothetical constructions shall be permitted. Proofs which are only applicable to commensurable magnitudes shall be accepted.

SCHEDULE A.

Bisection of angles and of straight lines.

Construction of perpendiculars to straight lines.

Construction of an angle equal to a given angle.

Construction of parallels to a given straight line.

Simple cases of the construction from sufficient data of triangles and quadrilaterals.

Division of straight lines into a given number of equal parts or into parts in any given proportions.

Construction of a triangle equal in area to a given polygon.

Construction of tangents to a circle and of common tangents to two circles.

Simple cases of the construction of circles from sufficient data.

Construction of a fourth proportional to three given straight lines and a mean proportional to two given straight lines.

Construction of regular figures of 3, 4, 6 or 8 sides in or about a given circle.

Construction of a square equal in area to a given polygon.

Schedule B.

Angles at a Point.

If a straight line stands on another straight line, the sum of the two angles so formed is equal to two right angles; and the converse.

If two straight lines intersect, the vertically opposite angles are equal.

Parallel Straight Lines.

When a straight line cuts two other straight lines, if (i) a pair of alternate angles are equal, or (ii) a pair of corresponding angles are equal, or (iii) a pair of interior angles on the same side of the cutting line are together equal to two right angles, then the two straight lines are parallel; and the converse.

Straight lines which are parallel to the same straight line are parallel to one another.

Triangles and Rectilinear Figures.

The sum of the angles of a triangle is equal to two right angles.

If the sides of a convex polygon are produced in order, the sum of the angles so formed is equal to four right angles.

If two triangles have two sides of the one equal to two sides of the other, each to each, and also the angles contained by those sides equal, the triangles are congruent.

If two triangles have two angles of the one equal to two angles of the other each to each, and also one side of the one equal to the corresponding side of the other, the triangles are congruent.

If two sides of a triangle are equal, the angles opposite to these sides are equal; and the converse.

If two triangles have the three sides of the one equal to the three sides of the other, each to each, the triangles are congruent.

If two right-angled triangles have their hypotenuses equal, and one side of the one equal to one side of the other, the triangles are congruent.

If two sides of a triangle are unequal, the greater side has the greater angle opposite to it; and the converse.

Of all the straight lines that can be drawn to a given straight line from a given point outside it, the perpendicular is the shortest.

The opposite sides and angles of a parallelogram are equal, each diagonal bisects the parallelogram, and the diagonals bisect one another.

If there are three or more parallel straight lines, and the intercepts made by them on any straight line that cuts them are equal, then the corresponding intercepts on any other straight line that cuts them are also equal.

Areas.

Parallelograms on the same or equal bases and of the same altitude are equal in area.

Triangles on the same or equal bases and of the same altitude are equal in area.

Equal triangles on the same or equal bases are of the same altitude.

Illustrations and explanations of the geometrical theorems corresponding to the following algebraical identities:

$$\begin{aligned} k\,(a + b + c \ldots) &= ka + kb + kc + \ldots . \\ (a + b)^2 &= a^2 + 2ab + b^2 \quad \ldots . \\ (a - b)^2 &= a^2 - 2ab + b^2 \quad \ldots . \\ (a^2 - b^2) &= (a + b)\,(a - b). \end{aligned}$$

The square on a side of a triangle is greater than, equal to, or less than the sum of the squares on the other two sides, according as the angle contained by those sides is obtuse, right, or acute. The difference in the cases of inequality is twice the rectangle contained by one of the two sides and the projection on it of the other.

Loci.

The locus of a point which is equidistant from two fixed points is the perpendicular bisector of the straight line joining the two fixed points.

The locus of a point which is equidistant from two intersecting straight lines consists of the pair of straight lines which bisect the angles between the two given lines.

The Circle.

A straight line, drawn from the centre of a circle to bisect a chord which is not a diameter, is at right angles to the chord; conversely, the perpendicular to a chord from the centre bisects the chord.

There is one circle, and one only, which passes through three given points not in a straight line.

In equal circles (or, in the same circle) (i) if two arcs subtend equal angles at the centres, they are equal; (ii) conversely, if two arcs are equal, they subtend equal angles at the centres.

In equal circles (or in the same circle) (i) if two chords are equal, they cut off equal arcs; (ii) conversely, if two arcs are equal, the chords of the arcs are equal.

Equal chords of a circle are equidistant from the centre; and the converse.

The tangent at any point of a circle and the radius through the point are perpendicular to one another.

If two circles touch, the point of contact lies on the straight line through the centres.

The angle which an arc of a circle subtends at the centre is double that which it subtends at any point on the remaining part of the circumference.

Angles in the same segment of a circle are equal; and, if the line joining two points subtends equal angles at two other points on the same side of it, the four points lie on a circle.

The angle in a semicircle is a right angle; the angle in a segment greater than a semicircle is less than a right angle;

and the angle in a segment less than a semicircle is greater than a right angle.

The opposite angles of any quadrilateral inscribed in a circle are supplementary; and the converse.

If a straight line touch a circle, and from the point of contact a chord be drawn, the angles which this chord makes with the tangent are equal to the angles in the alternate segments.

If two chords of a circle intersect either inside or outside the circle the rectangle contained by the parts of the one is equal to the rectangle contained by the parts of the other.

Proportion: Similar Triangles.

If a straight line is drawn parallel to one side of a triangle, the other two sides are divided proportionally; and the converse.

If two triangles are equiangular their corresponding sides are proportional; and the converse.

If two triangles have one angle of the one equal to one angle of the other and the sides about these equal angles proportional, the triangles are similar.

The internal bisector of an angle of a triangle divides the opposite side internally in the ratio of the sides containing the angle, and likewise the external bisector externally.

The ratio of the areas of similar triangles is equal to the ratio of the squares on corresponding sides.

Text-book recommended:—Godfrey and Siddons's Elementary Geometry (Pitt Press, Cambridge).

Geometry, Part II.

Euclid's Elements Books IV. and VI., with definitions of Book V., and easy deductions; or an equivalent.*

* The text-book at present used in McGill University and also authorized for use in the schools of the Province of Quebec, is Hall and Stevens's Euclid (Macmillan & Co.). Teachers will find Hall & Stevens's School Geometry a useful adjunct as far as regards practical applications.

In 1912, and thereafter it is proposed that the examination in Geometry, Part II, will be on the following requirements, with Godfrey and Siddons's Elementary Geometry as the text-book:

Constructions.

To draw the inscribed, escribed, and circumscribing circles of a triangle.

To construct triangles under given conditions.

To divide a given line externally and internally in medial section.

To construct an isosceles triangle, such that each of the base angles is twice the vertical angle.

To describe a regular pentagon.

To construct a polygon similar to a given polygon, and such that their areas are in a given ratio.

To construct a figure equal in area to a given figure A, and similar to another figure B.

Theorems.

If two sides of one triangle be equal respectively to two sides of another, that with the greater contained angle has the greater base; and conversely.

If a triangle is such that the square on one side is equal to the sum of the squares on the other two sides, the angle contained by these sides is a right angle.

The three medians of a triangle are concurrent.

Perpendiculars from the angles to the opposite sides of a triangle are concurrent.

The complements of parallelograms about the diagonal of any parallelogram are equal.

If the circumference of a circle be divided into n equal arcs

(1) The points of division are the vertices of a regular polygon of n sides inscribed in the circle;

(2) If tangents be drawn to the circle at these points, these tangents are the sides of a regular polygon of n sides circumscribed about the circle.

If OA : OB = OC^2, OC is a tangent to the circle through A B C.

If two triangles have an angle in each equal, and the sides about two other angles proportional, the remaining angles are equal or supplemental.

The perpendicular from the right angle of a right-angled triangle on the hypotenuse divides the triangle into two triangles which are similar to the original triangle.

The sum of the rectangles contained by the opposite sides of a quadrilateral, about which a circle can be described, is equal to the rectangle contained by its diagonals.

The squares on two sides of a triangle are together equal to twice the square on half the third side and twice the square on the median to that side.

If from the vertical angle of a triangle a straight line be drawn perpendicular to the base the rectangle contained by the sides of the triangle is equal to the rectangle contained by the perpendicular and the diameter of the circle described about the triangle.

If the vertical angle of a triangle be bisected by a straight line which also cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base, together with the square on the straight line which bisects the angle.

The areas of two similar polygons are as the squares on corresponding sides.

In a right angled triangle the rectilineal figure described on the hypotenuse is equal to the sum of the similar and similarly described figures on the other two sides.

If three lines be proportional, the first is to the third as the figure on the first is to a similar figure on the second.

If the straight lines joining a point to the vertices of a given polygon are divided (all externally or all internally) in the same ratio, the points of divisions are the vertices of a similar polygon.

Two similar polygons may be so placed that the lines adjoining corresponding points are concurrent.

Triangles of equal altitude are as their bases.

In equal circles, angles, whether at the centres or circumferences, are proportional to the arcs on which they stand.

If P is any point on the circumscribing circle of a triangle, ABC, and PL, PM, PN are perpendicular to BC, CA, AB, respectively, LNM is a straight line.

A point P moves so that the ratio of its distances from two fixed points, Q and R, is constant; prove that the locus of P is a circle.

Areas.

Area of a circle.

Area of a sector of a circle.

Area of a segment of a circle.

Use of Squared Paper.

Marking points.

Finding areas of rectilinear and curvilinear figures.

Examples of plotting loci: in particular, the ellipse, hyperbola, and parabola. (See Godfrey and Siddons's Elementary Geometry, Sect. XII., page 288).

Examples of loci and envelopes. (See Godfrey and Siddons's Elementary Geometry, page 293.)

Deductions and Applications.

Deductions from, and simple applications of the constructions and theorems given above.

An alternative paper will be set on the work prescribed for Senior, or Honour, Matriculation in the Province of Ontario.

One examination paper of an hour and three-quarters.

Trigonometry.

Measurement of angles, trigonometrical ratios or functions of one angle, of two angles, and of a multiple angle; as in Lock's Elementary Trigonometry, Chaps. I to XII., Hall and Knight's Trigonometry, Chaps. I. to XII., inclusive, omitting Chap. V.; or as in similar text-books.

One examination paper of an hour and a half.

Physiography.

The elements of the science, as in Davis's Elementary Physical Geography, or any other text-book covering the same ground.

One examination paper of an hour and a half.

Botany.

Text-book to be selected.

One examination paper of an hour and a half.

Chemistry.

Elementary inorganic chemistry, comprising the preparation and properties of the chief non-metallic elements and their more important compounds, the laws of chemical action, combining weight, etc. The ground is simply and effectively covered by Remsen's "Elements of Chemistry," pp. 1 to 165 and 218 to 243. (Macmillan's Edition.)

One examination paper of an hour and a half.

Physics.

Properties of matter; elementary mechanics of solids and fluids, including the laws of motion, simple machines, work, energy; fluid pressure and specific gravity; thermometry, the effects and modes of transmission of heat.

Text-books recommended—Gage's Introduction to Physical Science, 1902 edition (Ginn & Co.), Chaps. I. to IV., inclusive; or Sinclair's Practical Physics, Grades I., II., and III. (Copp, Clark Co.).

One examination paper of an hour and a half.

V.—Dates of the Examinations.

The examinations in 1910 will commence on Monday, June 13th, and on Friday, September 23rd. Special arrangements may be made for the examination of candidates who are prevented by severe illness or domestic affliction from presenting themselves on the dates fixed.

For the September Time Table, see first part of Calendar.

VI.—Admission to Advanced Standing.

I.—Entrance to Second Year.

Admission to the Second Year in Arts is open, as a rule, only to undergraduates who have passed the First Year Sessional Examination in regular course, but in special cases, to be dealt with by the Faculty, candidates may be admitted directly to the Second year without having passed through the curriculum of the First Year.

II.—Admission Ad Eundem Statum.

Any student of another university applying for exemption from any subject or subjects which he has already studied is required to submit with his application a complete statement of the course he has followed, together with a certificate of the standing gained therein.

The Faculty, if otherwise satisfied, will decide what examination, if any, or what conditions may be necessary before admitting the candidate.

Undergraduates in Arts of the Second and Third Years, or graduates in Arts of any university, entering the Faculty of Applied Science, may, at the discretion of the Faculty, be exempted from such lectures as they have previously attended as students in Arts.

REGISTRATION AND ATTENDANCE.

1. Candidates entering on a course of study in any Faculty, whether as undergraduates, conditioned students or partial students, are required to attend at the office of the University Registrar some time during the week preceding the opening day of the session, for the purpose of filling out in duplicate the usual form of registration, and of signing the following declaration in the Matricula or Register:—

"I hereby accept and submit myself to the statutes, rules, regulations and ordinances of McGill University, and of the Faculty or Faculties in which I am registered, and to any amendments thereto which may be made while I am a student of the University, and I promise to observe the same."

2. On the opening day of the session, or on one of the three preceding days, all students who have not registered under Regulation 1, shall register (as in the case of those entering for the first time) at the office of the University Registrar.

3. After registering the student will be given a registration ticket, on presentation of which to the different professors and lecturers whose classes he proposes to attend, his name will be entered on the class register. It will not be entered, nor will he be permitted to attend lectures, on any other condition.

In the case of students whose standing cannot be determined at the time of registration, special tickets will be issued, which will give them the right of admission to classes until such time as their status is ascertained.

4. Students are required to attend at least seven-eighths of the total number of lectures in any one course. Those whose absences exceed one-eighth of the total number of lectures in a course shall not be permitted to come up for the examination in that course.

Excuses on the ground of illness or domestic affliction shall be dealt with only by the Deans of the respective Faculties.

5. A record shall be kept by each Professor or Lecturer, in which the presence or absence of students shall be carefully noted. This record shall be submitted to the Faculty when required.

6. Credit for attendance on any lecture or class may be refused on the grounds of lateness, inattention, neglect of study, or disorderly conduct in the class room or laboratory. In the case last mentioned, the student may, at the discretion of the Professor, be required to leave the room. Persistence in any of the above offences against discipline shall, after admonition by the Professor, be reported to the Dean of the Faculty concerned. The Dean may, at his discretion, reprimand the student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from classes.

7. The following special regulations with regard to marking the attendance of students have been adopted by the Faculties of Arts and Applied Science respectively:—

I.—*By the Faculty of Arts.*

Lectures shall commence at five minutes after the hour, on the conclusion of the roll-call, and students failing to answer to their names shall be marked "absent," unless they report themselves at the close of the lecture, in which case they shall be marked "late," and given such credit for attendance as the Faculty may deem advisable. Lectures shall end at five minutes before the hour.

II.—*By the Faculty of Applied Science.*

Lectures will commence at five minutes after the hour, on the conclusion of the roll-call. After the commencement of a lecture students are not allowed to enter, except with the permission of the Professor. If permitted to enter, they will, on reporting themselves at the close of the lecture, be marked "late," and given such credit for attendance as the Faculty may deem advisable. Lectures end at five minutes before the hour.

BOARD AND RESIDENCE.

No college residences have as yet been erected for men students, but dormitory accommodation for about 60 is provided in Strathcona Hall, the new home of the McGill Y.M.C.A. Full particulars concerning terms of residence, etc., may be obtained from the Secretary of the Association, 348 Sherbrooke St. West, Montreal, who will also make arrangements to have students who are strangers to the City met on arrival and helped to secure lodgings, if due notice is sent of the station and time at which they will arrive.

The erection of suitable University residential halls for men is contemplated in the near future.

Women students may board and reside either in private houses or in the Royal Victoria College, which provides, in addition to separate lecture rooms, residential accommodation for the women students of the University.

The expense of board and residence for the Session in the Royal Victoria College varies from $351 to $411, according to the position of the rooms. Students who do not remain over for the summer classes receive a deduction of $50 from the regular charge. Further particulars will be furnished by the Warden.

Good board and lodging can be obtained in private houses in the vicinity of the University buildings at a cost of from $19 and upwards per month; or, separately, board at $12 to $18 per month, rooms at $6 to $14 per month.

A list of suitable boarding and lodging houses, the sanitary conditions of which are required to be properly certified, is prepared about a fortnight before the opening of the Session each year, and may be obtained upon application to the Registrar of the University.

Excellent board is furnished in the McGill Union at a reasonable rate—fifteen dollars per month. The dining room, which is a special feature of the Union, will accommodate over 120 students at a time. There is also a lunch counter where meals are served *à la carte*. A description of the building will be found on page 344.

RAILWAY RATES.

(1). Rates for Summer Vacations.

After April 15th, and up to June 30th, single fare return tickets will be issued to students of McGill University, on presentation of standard vacation certificates signed by the Principal or Registrar of the University, between Montreal and any station on the Intercolonial Railway in Quebec, and to any point in the Maritime Provinces, which is reached by either the Intercolonial or the Canadian Pacific Railways. These tickets will be good for return up to October 1st.

(2). Special Rates for Students from the West.

Between any station in Canada on the Canadian Pacific Railway and Montreal, where the one way regular first-class rate is $20.00, or more, one way continuous passage tickets will be issued at half the regular first-class one way fare, minimum rate to be charged $20.00. For example, if the first-class one way rate is $50.00, $25.00 will be charged, but if the one way rate is less than $40.00, $20.00 will be collected. In order to obtain this rate, students (intending students as well as those in attendance) will be required to present a special certificate signed by the Principal or Registrar of the University. The certificates referred to can be obtained at the Registrar's Office.

EXHIBITIONS, SCHOLARSHIPS AND PRIZES.

I. SCHOLARSHIPS AND EXHIBITIONS—GENERAL.

1. The Rhodes Scholarship.—This scholarship is of the annual value of £300 sterling and is tenable at the University of Oxford for three years. The scholar must be a British subject, must be over 19 and under 25 years of age, and must have reached at least the end of his Sophomore or Second Year in the University.

Rhodes Scholarships have been awarded as follows:—1904, Herbert J. Rose, B.A., and John G. Archibald, B.A.; 1905, Talbot M. Papineau, B.A.; 1906, Alexander R. McLeod, B.A.; 1908, Frank E. Hawkins, B.A.

The next election of a Rhodes Scholar by McGill University will be in 1911.

2. Science Scholarships granted by Her Majesty's Commissioners for the Exhibition of 1851.—These scholarships, of the value of £150 sterling a year, are tenable for two, or, in rare instances, three years. They are limited, according to the Report of the Commission, "to those branches of Science such as Physics, Mechanics and Chemistry, the extension of which is specially important for our national industries." Their object is not to facilitate ordinary collegiate studies, but "to enable students to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country."

It is open to students of not less than three years' standing who have shown evidence of capacity for original research, and is tenable at any university or any other institution approved by the Commission.

A nomination to one of these Scholarships may be granted to McGill University in 1911, in which event applications should be sent in to the Registrar on or before March 1st.

This Scholarship has been awarded as follows:—
Evans, P. N., 1891; Macphail, J. A., 1893; King, R. O., 1895; Gill, J. L. W., 1897; McLean, W. B., 1899; McClung, R. K., 1901; Cooke, H. Lester, 1903; Johnson, F. M. G., 1905; Simpson, J. C., 1907; Boyle, R. W., 1909.

3. The Dr. T. Sterry Hunt Research Scholarship in Chemistry.—It is proposed to offer this scholarship each year to graduate students in the Faculties of Arts and Applied Science.

4. The P. S. Ross Exhibition of $100.00, founded by Mr. P. D. Ross, B.A.Sc., in memory of his late father, Mr. P. S. Ross, and given through the Ottawa Valley Graduates' Society, will be awarded annually to the candidate from the Ottawa Valley for entrance to any Faculty, who obtains the highest percentage at the June matriculation examination.

II. SCHOLARSHIPS AND EXHIBITIONS IN ARTS.

GENERAL REGULATIONS.

1. No student can hold more than one Exhibition or Scholarship at the same time.

2. Exhibitions and Scholarships will not necessarily be awarded to the candidates who have obtained the highest marks. An adequate standard of merit will be required.

3. If in any College Year there be not a sufficient number of candidates showing adequate merit, any one or more of the Exhibitions or Scholarships offered for competition may be given to more deserving candidates in another Year.

4. A successful candidate must, in order to retain his Scholarship or Exhibition, proceed regularly with his college course to the satisfaction of the Faculty.

5. The annual income of the Scholarships or Exhibitions will be paid in four instalments, viz.:—In October, December, February and April, about the 20th day of each month.

EXHIBITIONS AVAILABLE IN ARTS.

The Jane Redpath Exhibition, founded by the late Mrs. Redpath of Terrace Bank, Montreal:—value, about $90, open to both men and women.

The Sir William Dawson Exhibition, given by the New York Graduates' Society:—value $60.

Ten Macdonald Scholarships and Exhibitions, founded by Sir W. C. Macdonald, Montreal:—value $125 each.

The Charles Alexander Scholarship (for men students), founded by the late Charles Alexander, Esq., Montreal, for the encouragement of the study of Classics and other subjects:—value $90.

The Major H. Mills Scholarship, founded by request of the late Major Hiram Mills:—value $100.

The Barbara Scott Scholarship, founded by the late Miss Barbara Scott, Montreal, for the encouragement of the study of the Classical languages and literature:—value $100 to $120.

Four Mackenzie Scholarships for Economics and Political Science, founded in memory of the late Hon. Alexander Mackenzie:—value, $50 to $100. (For particulars see page 57.)

One of The Rev. Samuel Massey Exhibitions, founded by Mr. George Massey, in memory of his late father, Rev. Samuel Massey:—value $62.50.

FIRST YEAR EXHIBITIONS IN ARTS.

The following Exhibitions and Scholarships* will be offered for competition in June, 1911, to candidates for admission to the First Year:—

(1) *Matriculation Exhibitions.*

These Exhibitions will be awarded for general proficiency on the results of the matriculation examination, the marks

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*A Scholarship is tenable for *two* years; an Exhibition for *one* year.

in English Grammar, History and Arithmetic not being reckoned, however, in determining the result.

Seven, of the value of $100 each—five for those intending to take the B.A. Course and two for candidates who propose to enter on the B.Sc. Course, in Arts—are open to both men and women; and two are open to women only and conditional on residence in the Royal Victoria College, one of $200 and one of $100.

For the Matriculation Exhibitions the value attached to each subject is as follows:—

Language subjects	100	Marks.
Mathematical subjects	100	"
English	75	"
Science subjects	50	"

(2) *Advanced Exhibitions.*

These Exhibitions and Scholarships will be awarded on the result of an examination on any three of the following subjects:—

English.
Latin.
Greek.
French.
German.
Mathematics.

Provided, however, that no award will be made to a candidate who has not obtained first-class standing at the University Matriculation Examination or at an examination which is accepted as its equivalent. For scope of examination in each subject see below.

Five Exhibitions are offered, of the value of $150 each, and three Scholarships, tenable for two years, of the value of $150 each per year.

The Scholarships shall be awarded to the three candidates (otherwise qualified) who take the highest standing in the examination, and the tenure of the Scholarship for the second

year shall be contingent on the holder obtaining a first class standing in the sessional examinations of the First Year, or, in the case of those who obtain first class in an Advanced Course, a standing not lower than second class in any subject.

One or more additional Advanced Exhibitions may be awarded should the number of candidates who attain a sufficiently high standard for Scholarships be less than three.

Every candidate for a First Year Exhibition or Scholarship shall, on application for examination, sign a declaration to the effect that he intends to proceed to a Degree in Arts in this University. Blank forms of application, to be obtained from the Registrar, must be filled out and returned before the first of May preceding the examination.

The subjects for the Advanced Exhibitions are of equal value.

Requirements in each Subject.

The details of the work required in the subjects for Advanced Exhibitions (any three of which may be chosen, as stated above) are as follows :

English.

LANGUAGE, 1910 and 1911.—The Making of English, by Henry Bradley (Macmillan).

LITERATURE, 1910 and 1911.—Poems of the Romantic Revival (Copp, Clark Co.) pp. 83-200, with Introduction and Notes ; Macaulay, Essays on Byron, Warren Hastings, Clive.

COMPOSITION.—The candidate will be required to write an essay on some subject connected with the examination.

Latin.

Grammar ; translation at sight ; prose composition.

Translation from and questions on the following texts :

1910.—Horace, Odes, Book I ; Livy, Book II, chaps 1 to 33.

1911.—Virgil, Aeneid, Book II; Cicero, in Catilinam I and II.

Greek.

Grammar ; translation at sight ; prose composition.
Translation from and questions on the following texts :
1910.—Homer, Odyssey IX; Thucydides I, chaps. 89 to 118.
1911.—Homer, Iliad VI; Lucian, Charon.

French.

(*a*) Grammar, including syntax; (*b*) translation at sight from French into English; (*c*) translation at sight of easy English prose passages into French; (*d*) translation from the following texts:—

1910 and 1911.—Augier, Le Gendre de M. Poirier (Heath & Co.); DeVigny, La Canne de Jonc (Heath & Co.); Sand, La Mare au Diable (Ginn & Co.).

German.

(*a*) Grammar.—accidence and syntax; (*b*) translation at sight from German into English; (*c*) translation at sight into German of an easy passage of English prose; (*d*) translation and grammatical study of the following texts:

1910 and 1911:—Fouqué, Undine (Holt); Chamisso, Peter Schlemihl (Holt); Keller, Kleider machen Leute (Heath).

Mathematics.

GEOMETRY.—Euclid's Elements, Books IV and VI, with definitions of Book V, and easy deductions.*

ALGEBRA.—The three progressions, ratio, proportion, variation, permutations and combinations, binomial theorem, logarithms, theory of quadratic equations, as in Hall & Knight's Elementary Algebra (omitting Chapters 40-43 inclusive), or as in similar text-books.

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* The text-book at present used in McGill University and also authorized for use in the schools of the Province of Quebec, is Hall & Stevens's Euclid (Macmillan & Co.). Teachers will find Hall & Stevens's School Geometry a useful adjunct as far as regards practical applications.

TRIGONOMETRY.—Measurements of angles, trigonometrical ratios or functions of one angle, of two angles, and of a multiple angle, as in Lock's Elementary Trigonometry, Chapters I to XII.; Hall & Knight's Trigonometry, Chaps. I. to XII inclusive, omitting Chap. V.; or as in similar text books.

In addition to the above First Year Exhibitions, an Exhibition of $150 is offered in the Faculty of Arts to the best applicant from the Model Class in Macdonald College who has satisfied the entrance requirements.

SECOND YEAR EXHIBITIONS IN ARTS.*

Six Exhibitions, ranging in value from $100 to $150 each, will be offered for competition to students entering the Second Year, in September, 1910:—

The subjects of examination are divided into two groups as follows:—

Group I.—Greek, Latin, French, German, English.
Group II.—Mathematics, Physics.

Candidates are required to offer two major subjects and one minor subject. The two major subjects must be selected from the same group, the minor subject from either group, the examination in the major subject being more extensive than that in the same subject presented as a minor subject. Two Exhibitions of $150 each and two of $100 each are offered to candidates taking their major subjects from Group I, and one Exhibition of $150 and one of $100 to candidates taking their major subjects from Group II.

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* Second Year Exhibitions are open to students who have passed the First Year sessional examinations, provided that not more than two sessions have elapsed since their matriculation; and also to candidates for entrance into the Second Year. The Second Year Exhibition examination will, for candidates who have not previously entered the University, be regarded as a matriculation examination, *pro tanto*.

The above Exhibitions are open to all undergraduates in Arts, whether they are taking the B.A. or the B.Sc. course.

Requirements in each Subject.

Greek.

(As a Major Subject.)

For 1910 and 1911:—

I. (*a*) Plato, Crito (Pitt Press).

(*b*) Euripides, Hecuba (Hadley, Pitt Press).

II. Composition and Translation at Sight.

III. History:—Morey's "Outlines of Greek History with a Survey of Ancient Oriental Nations" (American Book Company).

(As a Minor Subject.)

The same as above, omitting I (*b*) and III.

Latin.

(As a Major Subject.)

For 1910 and 1911:—

I. (*a*) Cicero, pro Lege Manilia (Wilkins, Macmillan).

(*b*) Virgil, Bucolica (Sidgwick, Pitt Press), omitting the 2nd and 3rd Eclogues.

II. Composition and Translation at Sight.

III. Roman History:—From the First Punic War to the death of Sulla.

(As a Minor Subject.)

The same as above, omitting I (*b*) and III.

French.

(As a Major Subject.)

(*a*) Grammar; (*b*) translation at sight of an English passage into French; (*c*) French essay on a prescribed subject; (*d*) translation of passages taken from the prescribed texts; (*e*) a critical study of the following texts, tested by questions in the French language to be answered in French:—

For 1910 and 1911.—Corneille, Cinna (Holt); Molière, Le Malade Imaginaire (Macmillan); Thiers, Expédition de Bonaparte en Egypt (Holt); France, Le Crime de Sylvestre Bonnard (Holt).

(*As a Minor Subject.*)

The same as above, omitting Molière and Thiers.

German.

(*As a Major Subject.*)

(*a*) Grammar; (*b*) translation at sight from German into English, and from English into German; (*c*) the life of Schiller and a critical study and translation of the following texts:—

For 1910 and 1911.—Schiller, Die Piccolomini (Pitt Press); Kleist, Michael Kohlhaas (Holt); Fulda, Talisman (Heath).

(*As a Minor Subject.*)

The same as above, omitting Schiller.

English.

(*As a Major Subject.*)

Literature.—Shakespere, Macbeth (ed. Deighton, Macmillan); Milton, Comus (ed. Bell, Macmillan); Johnson, Lives of Dryden and Pope (ed. Milnes, Clarendon Press Series).

History.—Church, Middle Ages.

(*As a Minor Subject.*)

The same as above, omitting Comus and Lives of Dryden and Pope.

Mathematics

(*As a Major Subject.*)

Plane Geometry.—Ordinary and advanced section courses of the First Year.

Algebra.—Selected course from Chaps. I.-XXXII. of Hall and Knight's Higher Algebra.

Theory of Equations.—Selected course from Burnside and Panton.

Plane Trigonometry.—As in the ordinary and advanced courses of the First Year.

(*As a Minor Subject.*)

The Mathematics of the First Year ordinary course.

Physics

As in Carhart and Chute.

THIRD YEAR SCHOLARSHIPS IN ARTS.*

The following five Scholarships, of the annual value of $150 each, will be open for competition to students entering the Third Year in September, 1910:—

One for English and another language.

One for Latin or Greek and another Language † (English excepted).

One for French or German and another language † (English excepted).

Two for Mathematics and Physics.

In addition to the above Scholarships, the three following Exhibitions, of the value of $150.00 each, are also offered for competition to students entering the Third Year:—

One for Philosophy.

One for Chemistry and Physics.

One for Biology.

A Bursary of $25 will be awarded to that one of the holders of these three Exhibitions who is considered most deserving on entering the Fourth Year.

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* Third Year Scholarships and Exhibitions are open to students who have passed the Second Year sessional examination, provided that not more than three sessions have elapsed since their matriculation; and also to candidates who have obtained what the Faculty may deem equivalent standing in some other university, provided that application be made before the end of the session preceding the examination. Double course students (Arts and Applied Science or Arts and Medicine) are not eligible for these Scholarships.

† The language not chosen in the first instance may be taken as the second language.

An Exhibition of $50, to be known as the Hannah Willard Lyman Exhibition, will also be awarded annually in the Fourth Year, to the best woman student who may have been the holder of a Third Year Exhibition in Biology or Chemistry or Philosophy. Should there be no sufficiently deserving candidate, this Exhibition may be awarded at the beginning of the Third Year to a woman candidate who may fail to obtain one of the five regular Scholarships offered to Third Year students

Of the two Third Year Scholarships assigned to Mathematics and Physics, one is open to women only, the other to men only. Should, however, no candidate be eligible for the scholarship open to men only, it may be awarded to a woman.

In the award of Third Year Scholarships, the Second Year standing of candidates, in the subjects selected, will be taken into account.

In the event of no candidate of sufficient merit presenting himself, the Scholarship assigned to any group of subjects may, at the discretion of the Faculty, be awarded in another group, whether a scholarship has been already assigned to that group or not.

Mackenzie Exhibitions:—

Four Exhibitions, known as the Mackenzie Exhibitions, are awarded annually in the Department of Economics and Political Science. Two of these, of the value respectively of $100 and $50, tenable for one year, are awarded on the result of a special examination (see page 60), held in September, and open to students who have completed the work of the Second Year. The tenure of the Exhibitions is conditional upon the holders pursuing their studies in the Honour work in Economics and Political Science of the Third Year. The other two Exhibitions, of the value respectively of $100 and $50, are awarded on the results of the Honour examination of the Third Year in Economics and Political Science. The Exhibitions will not be awarded except on satisfactory evidence of merit: their tenure is conditional upon the holders

pursuing their studies in the Honour work in Economics and Political Science of the Fourth Year.

A Fourth Year Mackenzie Exhibition may be held by a student who holds another; a Third Year Exhibition cannot.

Requirements in each Subject.

Greek.

Prose composition; translation at sight.

Study of the following texts:—Demosthenes, Olynthiacs (Glover, Pitt Press); Homer, Odyssey, Bk. ix. (Edwards, Pitt Press).

Greek History, to 404 B.C. Book recommended, Bury, History of Greece (Macmillan).

Latin

Prose composition; translation at sight.

Study of the following texts:—Virgil, Æneid I, II, and VII; Quintilian X (Peterson, Clarendon Press), Chapters 1 and 2, Tacitus, Histories, Bk. I (Davies, Pitt Press).

Roman History, 133 to 31 B.C. Book recommended, How and Leigh, History of Rome (Longmans).

English and History.

Literature. Shakspere, Tempest, ed. Deighton (Macmillan); Milton, Paradise Lost, Books I and II, ed. Macmillan (Macmillan); Burke, On Conciliation with America, ed. Cook (Longman's); Arnold, Essays in Criticism, Second Series (Macmillan's Colonial Library). *History.*—Robinson, Introduction to the History of Western Europe (Ginn & Co.). *Composition.*—The candidate will be required to write an essay on some subject connected with the literature or history prescribed. High marks will be given for this subject.

Hebrew.

Deuteronomy, Chaps. I-VII (Driver's Deuteronomy in International Commentary Series); also the record of the Call of the Prophets Isaiah, Jeremiah and Ezekiel, *i.e.*, Is.:

VI.; Jer.: I, and Ezek.: I. Papers will also be set on easy prose composition, pointing, sight translation and miscellaneous questions.

French.

(*a*) French essay; (*b*) translation at sight from French into English and from English into French; (*c*) translation of passages from the prescribed texts; (*d*) questions on the subject matter of the following texts, and the lives of their authors:—Molière, Le Médecin malgré lui (Heath); Racine, Phèdre (Heath); Hugo, Les Misérables (Heath); Taine, Introduction à l'Histoire de la Littérature Anglaise (Heath); Rostand, Cyrano de Bergerac (Holt).

The entire examination will be held in the French language.

German.

(*a*) German essay; (*b*) translation at sight from German into English and from English into German; (*c*) translation from the prescribed texts; (*d*) questions on the subject matter of the following texts, the lives of their authors and the periods they represent: —

Goethe, Dichtung und Wahrheit, Bks. I, II, III (Heath); Schiller, Das Lied von der Glocke (Holt) and Wallenstein's Lager (Holt); Eichendorff, Aus dem Leben eines Taugenichts (Holt); Heine, Prose Selections (Macmillan).

Mathematics and Physics.

Mathematics.

Differential and Integral Calculus.—Lamb's Infinitesimal Calculus and Osgood's Calculus.

Analytic Geometry.—C. Smith's Conic Sections.

Higher Trigonometry.—Carslaw's Plane Trigonometry.

Spherical Trigonometry.—The subject matter covered in the Second Year special course in this subject.

Algebra.— Determinants, as in Burnside and Panton's Theory of Equations.

Physics.

Electricity and Magnetism.—S. P. Thompson

Chemistry and Physics.

Principles of Chemistry, Mendeléef.

Subject of Essay.—The Seventh Group of Elements in the Periodic Table.

Physics.

Electricity and Magnetism.—S. P. Thompson.

Philosophy.

Mellone, Text-book of Logic, chapters 1-10 inclusive; Mill, System of Logic, Bk II, chap. 3, and Book III, chaps. 1-12, 14 and 21; James, Psychology, Briefer Course; Angell, Psychology, chaps. I and II; Berkeley's "Three Dialogues between Hylas and Philonous" (Open Court Philosophical Classics).

Biology.

Animal Biology.

The Origin of Species, by Charles Darwin.

Plant Biology.

Cross and Self Fertilization in the Vegetable Kingdom, by Charles Darwin.

Economics.

John Stuart Mill, Principles of Political Economy, Book I, Book II (Chapters XI, XIV, XV, XVI), Book III and Book V (Chaps. I, II, III, IV, V, VI, X, XI); F. Walker, Political Economy, Advanced Course, Parts I-V (inclusive); J. K. Ingram, History of Political Economy (edition 1893), pp. 1-42 (inclusive), 55-63 (inclusive), 87-104 (inclusive), 196-206 (inclusive), and 231-234 (inclusive); L. L. Price, A Short History of English Commerce and Industry.

III. PRIZES IN ARTS.

1. The Neil Stewart Prize.—An annual prize of $15 is open to all undergradutes and graduates of this University, and also to graduates of any other university, who are students

of Theology in some college affiliated to this University. The rules which govern the award of this prize are as follows:—

(1) The candidate selected for the prize shall have passed an examination in (1) Hebrew Grammar, syntax, easy composition, pointing, and miscellaneous questions: (2) Translation from Hebrew into English, both prepared and unprepared. The Hebrew texts prescribed for the present year are as in the Ordinary Hebrew Course (page 138.)

(2) Three papers will be set of three hours each:—One on pointing and translation (with lexical and grammatical notes); one on grammar and composition; and one on miscellaneous questions.

(3) Credit will be given to candidates showing a knowledge of Biblical Aramaic, and Rabbinic, provided the work done on classical Hebrew be thoroughly up to Scholarship standard. Special application should be made for a paper on these subjects.

(4) Should no candidate's work be up to the Scholarship standard the prize will be withheld, and a prize of $30 will be offered in the following year for the same.

The prize, founded by the late Rev. C. C. Stewart, M.A., and terminated by his death, was re-established by the liberality of the late Neil Stewart, Esq., of Vankleek Hill.

2. **Early English Text Society's Prize.**—This prize, the annual gift of the Early English Text Society, will be awarded for proficiency in the subjects of the language group in the English Honour curriculum of the Third and Fourth Years.

3. **New Shakespere Society's Prize.**—This prize, the annual gift of the New Shakspere Society, open to graduates and undergraduates, will be awarded for a critical knowledge of the following plays of Shakspere:—Hamlet, Macbeth, Othello, King Lear.

4. **Charles G. Coster Memorial Prize.**—This prize, of the value of $25.00, and intended as a tribute to the memory of the late Rev. Chas. G. Coster, M.A., Ph.D., Principal of the Grammar School, St. John, N.B., is offered for competition, by Mr. Colin H. Livingstone, B.A., to undergraduates (men and women) from the Maritime Provinces (Nova Scotia, New Brunswick and Prince Edward Island). It is awarded on the decision of the Dean of the Faculty of Arts to that student in Arts from the Maritime Provinces who shows the greatest proficiency in the examinations at the end of the Session.

5. **Annie McIntosh Prize.**—The income of the sum of $425, subscribed by the pupils and friends of the late Miss Annie M. McIntosh, will be offered as a prize to students of the Royal Victoria College in such subject, or for such work, as the Faculty may determine.

For Medals and Certificates awarded in Arts, see page 67.

The names of those who have taken Honours or Certificates will be published in order of merit, with mention, in the case of students of the First and Second Years, of the schools in which their preliminary education has been received.

IV. EXHIBITIONS AND PRIZES IN APPLIED SCIENCE

I.—Awarded on Result of Special Examinations.

1. Two prizes, each of $10.00, presented by J. M. McCarthy, Esq., B.A.Sc., to students entering the Third Year, for proficiency in Levelling and Transit Work.

2. A Scholarship of the value of $200 per annum, established by the Canadian Railway Club, to be awarded to the son of a member of the Club who obtains the highest standing in the matriculation examination.

3. Scholarships covering four years' tuition in the Faculty of Applied Science are also awarded annually by the Grand Trunk and Canadian Pacific Railway Companies. These are open for competition to apprentices and other employees of the Companies under twenty-one years of age, as well as to minor sons of employees, and the award is made on the result of the June Matriculation Examination for entrance to Applied Science. For full particulars as to number of scholarships offered, conditions, etc., application should be made, in the case of the Grand Trunk Railway, to Mr. R. S. Logan, Assistant to the Second Vice-President, G.T.R. Offices, Montreal; and, in the case of the Canadian Pacific Railway, to Mr. C. H. Buell, office of the Vice-President, C.P.R. Offices, Montreal.

II.—Awarded on results of Sessional Examinations or for special theses.

1. A British Association Exhibition of $50.00 and a prize of $25.00, at the end of the Third Year, to the students who obtain the highest and the second highest aggregate marks, respectively, in the sessional examinations in Strength of Materials and Mechanics of the Third Year.

2. Three prizes of $25.00, $15.00 and $10.00, at the end of the Second Year, to the students obtaining the highest, and the second and third highest, aggregate marks, respectively, in the sessional examinations in Analytic Geometry, Calculus and Mechanics of the Second Year.

3. A Scott Exhibition of $50.00, founded by the Caledonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, and two prizes of $25.00 and $15.00, at the end of the First Year to the students obtaining the highest, and the second and third highest aggregate marks, respectively, in the sessional examinations in the Mathematics, Descriptive Geometry and Physics of the First Year.

4. The Allis-Chalmers Company of Chicago offer several Scholarships for excellence in work in the Mining Department. Particulars regarding these Scholarships can be obtained from the Professor of Mining.

5. Workship Prize.—A prize of $20.00, presented by Mr. C. J. Fleet, B.A., B.C.L., for bench and lathe work in the wood-working department, open to students of not more than two terms' standing in workshop practice.

6. A prize of $50.00, presented by Mr. James Tighe, B.A.Sc., for research work in Hydraulics.

7. An exhibition offered to graduates by Mr. A. E. Childs, M.Sc., for a special research on "The flow of gas through pipes under pressure."

8. Summer Work. (See page 190.) The following prizes are offered for the best summer theses:—

To the students of the Civil Engineering Course, a prize of $25, presented by E. B. Greenshields, Esq., B.A.

To the students of the Electrical Engineering Course, a prize of $25.

To the students of the Mining Engineering Course, a prize of $25, presented by Geo. E. Drummond, Esq.

To the students of the Metallurgical Course, a prize of $25, presented by Milton L. Hersey, Esq., D.Sc.

To the students of the Mechanical Engineering Course, a prize of $25, presented by the Crosby Steam Gauge and Valve Co.

Four prizes, each of the value of $25, are offered for competition to student members of the Canadian Society of Civil Engineers, for the best papers on subjects in any department of engineering. The summer theses prepared by students of this University are available for this competition.

9. The sum of $50.00 has been voted by the Undergraduates' Society of the Faculty of Applied Science, to be given as prizes for the best papers read before the Society during the session 1910-1911.

10. One of the two Rev. Samuel Massey Exhibitions, founded by Mr. George Massey in memory of his late father, (value $62.50) will be awarded at the close of the Second Year to the student having the highest aggregate standing in all the subjects of that Year as determined by the results of the final examinations.

11. Prizes or Certificates of merit are given to such students as take the highest place in the Sessional and Degree examinations. Partial students are not eligible for prizes.

For other prizes given in connection with Medals in Applied Science, see under Medals and Prizes, page 69.

III. Awarded at the Discretion of the Faculty.

1. The Hon. Robert Jones' Scholarship, having a value of One Hundred and Twenty-five Dollars ($125.00) per annum, "is granted from time to time to some poor student for the full term of study in the Faculty of Applied Science."

This scholarship will be awarded to some student entering the First Year at the opening of the session 1910-11. Ap-

plication should be made through the Dean of the Faculty of Applied Science. In awarding the scholarship the standing of the student in the matriculation examination will be considered, and the scholarship will not be continued if the standing of the student at any time during his course proves to be unsatisfactory.

2. A Fund has been established by the Class of 1899, to be known as "The Class of 1899 Fund," for the purpose of aiding, each year, one or more students who, upon the completion of their Second Year work, require assistance to enable them to finish their course of study. The loans from this fund made to students will be repayable after graduation. Applications should be made through the Dean.

V. EXHIBITIONS AND PRIZES IN MEDICINE.

1. **The Final Prize.**—A prize in books (or a microscope of equivalent value) awarded for the best examination, written and oral, in the Final branches. The Holmes' medallist is not permitted to compete for this prize.

2. **The Third Year Prize.**—A prize in books awarded for the best examination, written and oral, in the branches of the Third Year.

3. **The Second Year Prize.**—A prize in books for the best examination in all the branches of the Second Year course.

4. **The First Year Prize.**—A prize in books for the best examination in all the branches of the First Year course.

For the Medals awarded in this Faculty, see page 70.

VI. EXHIBITIONS AND PRIZES IN LAW.

1. An Exhibition, of the value of $50 per annum—to be known as the Alexander Morris Exhibition—has been founded in memory of the late Hon. Alexander Morris, M.A., D.C.L., of Toronto, Ont., and will be awarded to the student who obtains the highest standing in the Second Year.

2. Various money prizes are awarded to the students of each year who obtain the highest distinction at the examinations held at the close of the session. No prize will, however, be awarded to any student unless a sufficiently high standing is attained.

For Medals in Law, see under Medals, etc., page 69.

MEDALS, CERTIFICATES AND HONOURS.

I. IN ARTS.

1. **Gold Medals** will be awarded in the B.A. Honour examinations to students who take the highest Honours of the first rank in the subjects stated below, and who shall have passed creditably the ordinary examinations for the Degree of B.A., provided they have been recommended therefor to the Corporation by the Faculty, on the report of the examiners:—

The Henry Chapman Gold Medal for Classical Languages and Literature.

The Prince of Wales Gold Medal for Mental and Moral Philosophy.

The Anne Molson Gold Medal for Mathematics and Natural Philosophy.

The Shakspere Gold Medal for English Language and Literature.

The Logan Gold Medal for Geology, Mineralogy and Palæontology.

The Major Hiram Mills Gold Medal for Biology.

The Governor-General's Gold Medal for Modern Languages and Literature.

The regulations for the Governor-General's Gold Medal are as follows:—

(1) The subjects for competition shall be the French and German languages and literature.

(2) The course of study shall extend over two years, viz., the Third and Fourth Years.

(3) The successful candidate must be capable of speaking and writing both languages correctly.

(4) There shall be examinations in the subjects of the course in both the Third and Fourth Years, at which Honours may be awarded to deserving candidates.

(5) The general conditions of competition and the privileges as regards exemptions shall be the same as for the other Gold Medals in the Faculty of Arts.

(6) Students from other Faculties shall be allowed to compete, provided they pass the examinations of the Third and Fourth Years in the above subjects.

(7) Candidates desiring to enter the Third Year of the course, who have not obtained first class standing at the sessional examinations of the Second Year in Arts, are required to pass an examination in the work of the first two years of the course in Modern Languages, if called on to do so by the Professors.

(8) The subjects of examination shall be those of the Honour Course in Modern Languages.

In addition to the above, certain medals are offered annually by the Alliance Française, at the discretion of the Department of Modern Languages.

If there be no candidate for any medal, or if none of the candidates fulfil the required conditions, the medal will be withheld, and the proceeds of its endowment for the year may be devoted to prizes in the subject for which it was intended.

For details of the work prescribed for the several Honour courses, see pages 100 to 105, and also pages 115 to 175.

2. **Special Certificates** will be given to those candidates for B.A. who have been placed in the first class at the ordinary B.A. examination; have obtained three-fourths of the maximum marks in the aggregate of the courses proper to the Third and Fourth Years, are in the first class in not less than half of these courses, and have no third class. At this examination, no candidate who has taken exemptions (see pages 111 to 114) can be placed in the first class unless he has obtained first class in the examination in four of the subjects offered (each corresponding to a full course of lectures), and has no third class.

3. **Certificates** of High General Standing will be granted to those undergraduates of the first two years who have obtained three-fourths of the maximum marks in the aggregate of the studies proper to their year, are placed in the first class in not less than half the subjects, and have not more than one third class.

4. **Graduates** who attend lectures in any subject, and pass the corresponding examinations therein, may obtain

certificates of their standing, whether the course in question be Ordinary or Honour.

For Prizes in Arts, see page 60.

II. IN APPLIED SCIENCE.

1. The Governor-General's silver medal (the gift of His Excellency The Right Honourable Earl Grey) will be awarded for graduate research work.

2. A British Association medal and prize in books are open for competition to students of the graduating class in each of the ten courses, and, if the examiners so recommend, will be awarded to the student taking the highest position in the final examinations. The British Association Medals and Exhibition were founded by the British Association for the Advancement of Science, in commemoration of the meeting held in Montreal in the year 1884.

3. A Gold Medal and two Prizes of $35 and $15, offered by the Canadian Mining Institute, will be open for competition to students from McGill University, Toronto University, and Queen's University, and will be awarded to the students presenting the best papers on some subject connected with mining, ore dressing, metallurgy, or economic geology. Preference will be given to those theses which show decided originality.

4. Honours.—On graduation, Honours will be awarded for advanced work in professional subjects.

5. Certificates may be given to students who have passed through any of the special courses attached to the curriculum.

For Prizes in Applied Science, see page 62.

III. IN LAW.

1. The Elizabeth Torrance Gold Medal is awarded to the student who obtains the highest marks in the final examinations, provided that his answers are, in the estimation of the Faculty, of sufficient merit to entitle him to this distinction.

For Prizes in Law, see page 65.

IV. IN MEDICINE.

1. **The Holmes Gold Medal,** founded by the Medical Faculty in the year 1865, as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine, is awarded to the student of the graduating class who receives the highest aggregate number of marks in the different branches comprised in the medical curriculum.

The student who gains the Holmes' Medal has the option of exchanging it for a bronze medal and the money equivalent of the Gold Medal.

2. **The Sutherland Gold Medal,** founded in 1878 by the late Mrs. Sutherland, in memory of her late husband, William Sutherland, M.D., formerly Professor of Chemistry in this Faculty, is awarded for the best examination in general and medical Chemistry, together with a creditable examination in the Primary branches. The examination is held at the end of the Third Year.

3. **The Wood Gold Medal,** founded by Mr. Casey A. Wood, M.D., is awarded to the student of the graduating class who receives the highest aggregate number of marks in the clinical branches of the Final Year.

4. **The Woodruff Gold Medal,** founded by Dr. Thomas A. Woodruff, of Chicago, is awarded to the student of the Final Year who takes the highest standing in Ophthalmology and Oto-Laryngology.

For Prizes in Medicine, see page 65.

FEES.

GENERAL REGULATIONS.

1. Fees shall be paid to the Bursar on or before October 10th. The registration ticket must be shown to the Bursar in every case, before the fee is paid. After October 10th an additional fee of $2.00 will be exacted of all students in default.

No fees will be refunded to partial students under any circumstances whatever.

2. Immediately after October 20th the Bursar shall send to the Deans of the several Faculties a list of the registered students who have not paid their fees, on receipt of which the Deans shall cause their names to be struck from the registers of attendance, and such students cannot be re-admitted to any class except on presentation of a special ticket, signed by the Bursar, certifying to the payment of fees.

Students registering after October 20th shall pay their fees at the time of registration, failing which they become subject to the provisions of Regulation 2.

MATRICULATION FEES.

For the first examination *.	$5.00
(For examination at a local centre where not more than two candidates are writing the fee will be determined by the Registrar, provided however, that it shall in no case exceed $12 for each candidate.)	
For a subsequent examination in one or two subjects.	2.00

* In the case of candidates who qualify on certificates, or by other examinations in all but three subjects, or less, the fee will be $3.00.

For a subsequent examination in three or more subjects 3.00

For examination of certificates, in respect of which candidates are exempted from the whole of the matriculation examination 1.00

Matriculation fees must be sent to the University Registrar at the time of application for the examination.

Certificates will be issued to successful candidates without additional fee. Duplicate certificates will not be granted unless satisfactory proof be given of the loss or destruction of the original. The fee for a duplicate certificate is $1.00.

FEES IN ARTS.

(*For Regulations re payment, see page 71.*)

Sessional fee for undergraduates and conditioned students $61.00*

(This includes fees for laboratories, library, gymnasium, athletics and graduation.)

Fees for Partial Students.—(First and Second Years.)—$16 per session for one course† and $10 for one half-course† of lectures, including the use of the Library; $12 per session for each additional course; $8 per session for each additional half-course. In addition there will be a fee of $3 for Athletics.

Fees for Partial Students.—(Third and Fourth Years.)—$22 per session for one course† and $13 for one half-course† of lectures, including the use of the Library; $20 per session for each additional course; $11 per session for each additional half-course. In addition there will be a fee of $3 for Athletics.

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* At the request of the students themselves and by the authority of Corporation, an additional dollar will be exacted from all undergraduates and conditioned students (men) in the Faculty of Arts, for the support of the Literary and the Undergraduates' Societies of that Faculty.

† The lectures and laboratory work, if any, in one subject in any of the four college years constitute a "course," if occupying three hours per week; a "half-course" if occupying less than three hours per week.

Partial students taking the full curriculum in any one Year pay the same fees as undergraduates in that Year.

Graduates in Arts of this University and graduates of other universities attending full courses in affiliated theological colleges are allowed, on payment of one-half of the usual fees, to attend all lectures in the undergraduate course, except those for which a special fee is exigible.

Fees for special courses of lectures, given after 4 p.m.:—

For one lecture per week during one term	$ 3.00
For two lectures per week during one term	4.00
For one lecture per week during the session	4.00
For two lectures per week during the Session	6.00

For more than two lectures per week regular partial student rates will be charged.

The fee for athletics and the caution money deposit are not exacted from partial students attending only the courses of lectures included in the Teachers' Syllabus.

Fees for summer classes:—

For one class (Botany and Chemistry excepted)..	8.00
For each additional class (Botany, Physics and Chemistry excepted)	4.00
For Physics..	8.00
For Botany..	10.00
(Teachers and McGill University students may attend the class in Botany on payment of half the above fee.)	
For Chemistry (with Laboratory Work)..	$25.00

Special fees:—

Supplemental examination in any subject or any part of a subject taken at the regular date fixed by the Faculty..	2.00
Supplemental examination, when granted at any other time than the regular date fixed by the Faculty..	5.00

All fees for supplemental examinations must be paid to the Bursar, and the receipts shown to the Dean before the examination.

Fee for the Degree of B.A. or B.Sc. (Arts) conferred in absentia (except when the candidate has been specially exempted by the Faculty)... $20.00

Caution Money.—Every student is required to deposit with the Bursar the sum of $5, as caution money, to cover damage done to furniture, apparatus, books, etc. This amount, less deductions (if any), will be returned at the close of the session.

FEES IN APPLIED SCIENCE.

(*For Regulations re payment, see page 71.*)

Sessional fee for the undergraduate course in Architecture.. .. .. $150.00
Sessional fee for all other undergraduate courses.. 200.00

(Undergraduates and conditioned students who were in attendance during the session 1909-1910, or previously, will be allowed to complete their several courses on payment of $100 for the undergraduate course in Architecture and $175 for any other undergraduate course).

Students taking the six year Double Course in Arts and Applied Science shall pay full fees in Arts for the first three years of their course and the following fees in Applied Science:—

Sessional fee for First and Second Years of double course (including Summer School).. .. .. .. $50.00
*Sessional fee for Fourth, Fifth and Sixth Years of double course.. .. .. 200.00

The fees for partial students are:—$4.00 for Library, $3.00 for Athletics, and a fee at the rate of $6.00 per annum for each hour of instruction per week, but the maximum fee shall in no case exceed the full undergraduate fee. Commencing with the session of 1911-12, this fee of $6.00 will be raised to $7.00.

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* (For students in attendance during the session 1909-1910, or previously, this fee will be $175.).

In addition to the fees specified above, every student is required to pay a fee of $1.00 for the Undergraduates' Society in the Faculty of Applied Science, to be collected with the tuition fees at the office of the Bursar.

CAUTION MONEY.—Every student is required to deposit with the Bursar the sum of $10, as caution money, to cover damage done to furniture, apparatus, books, etc. This amount, less deductions (if any), will be returned at the close of the session.

Fee for graduates taking a full undergraduate course 150.00

(Graduates of this Faculty will be required to pay only one-half of this amount.)

Fee for the Degree of B.Sc., conferred in absentia (except when the candidate has been specially exempted by the Faculty) $20.00

Fees for Summer classes (First Year).

Mathematics.

For one division of the subject 8.00
For each additional part 4.00
Physics 8.00
Descriptive Geometry, Freehand Drawing and Lettering 25.00
Chemistry, with Laboratory Work (Second Year) 25.00

For regular supplemental examinations, the fee is $2.00 for each subject. It must be paid to the Bursar of the University not later that the day before the examination, and receipt for the same must be shown to the Professor in charge before the examination papers are distributed.

The fee for a special supplemental examination is $5.00.

FEES IN MEDICINE.

(*For Regulations re payment, see page 71.*)

First Year.

Sessional fee for the Undergraduate course	$150.00
Caution money (deposit)*	10.00

Undergraduates and conditioned students who were in attendance during the session 1909-1910, or previously, will be allowed to complete their course on payment of fees as under:—

Second Year.

Sessional fee	$125.00
Caution money (deposit)*	10.00
Athletics	3.00
	$138.00

Third Year.

Sessional fee	$125.00
Caution money (deposit)*	10.00
Hospitals	10.00
Athletics	3.00
	$148.00
Maternity Hospital fee (to be paid by four-year-course students only)	6.00

* The Caution money deposit is intended to cover breakages in the different laboratories, etc. The amount of the deposit, less deductions (if any), will be returned at the close of the Session.

FOURTH YEAR.

Sessional fee	$125.00
Caution money (deposit)*	10.00
Hospitals	10.00
Maternity Hospital fee (half amount)	6.00
Athletics	3.00
	$154.00
Fee for M. D. Degree (to be paid by four-year-course students only)	$30.00

FIFTH YEAR.

Sessional fee	$125.00
Caution money (deposit)*	10.00
Hospitals	10.00
Maternity Hospital (half fee)	6.00
Athletics	3.00
Fee for the Degree of M.D., C.M.†	30.00
	$184.00

Students taking the seven year Double Course in Arts and Medicine shall pay the following fees: in the First and Second Years, full undergraduate fees in Arts; in the Third Year, full fees in Arts and $50 in Medicine; in the Fourth Year, full fees in both Arts and Medicine; in the Fifth, Sixth and Seventh Years, full fees in Medicine.

Sessional fee for students repeating a session $35.00

Repeating students must also pay in addition to the above, $3 for Athletics and make the usual caution money deposit of $10.

* The Caution money deposit is intended to cover breakages in the different laboratories, etc. The amount of the deposit, less deductions (if any) will be returned at the close of the Session.

† When the Degree is conferred in absentia an additional fee of twenty dollars will be exacted, unless the candidate has been specially exempted by the Faculty.

Fee for students from other colleges who have paid full fees there for courses to be taken. $35.00

These students are also required to pay in addition $3 for Athletics, the Hospital fees exacted in the year to which they are admitted, and to make the usual caution money deposit of ten dollars.

An ad eundem fee of $10 will be charged students entering from another university in the Second, Third, Fourth or Fifth Year of the Course.

Partial Students will be admitted on payment of special fees.

Fee for Supplemental Examination. $5.00
Fee for the Undergraduates' Society. 1.00

(At the request of the students in this Faculty the above sum will be collected from each, at the time of the payment of the sessional fees.)

Fee for the regular Graduate Course (for details of courses see Medical Announcement) $50.00
Fee for the Course in Public Health and Diploma. . $50.00

FEES IN DENTISTRY.

Students in Dentistry pay the following fees:

Sessional fee. $125.00
Grounds and Athletics. 3.00
Caution Money (Deposit)*. 10.00
Graduation fee. 30.00

FEES IN LAW.

(*For Regulations re payment, see page 71.*)

Registration Fee. $5.00
Sessional fee (including fee for athletics) for the undergraduate course. 60.00
Athletics' fee, payable by Partial Students. 3.00
Graduation fee† 12.50

*The Caution Money Deposit is intended to cover breakages in the different laboratories, etc., and will be returned, less deductions, if any, at the close of the Session.

†When this Degree is conferred in absentia an extra fee of $20.00 will be exacted, unless the candidate has been specially exempted by the Faculty.

Students taking the six year Double Course in Arts and Law shall pay full fees for each of the four years in Arts and full fees for each of the three years in Law.

Fees for Partial Students:—

For course in Roman Law	$20.00
For each of the following courses: Successions, Criminal Law, Commercial Law, Obligations, Civil Procedure	15.00
For each of the shorter courses	10.00

Caution Money.—Every student is required to deposit with the Bursar the sum of $5, as caution money, to cover damage done to furniture, loss of books, etc. This amount, less deductions (if any), will be returned at the close of the session.

Fee for the Degree of D.C.L.	$80.00

FEES IN THE GRADUATE SCHOOL.

For the course leading to the Degree of M.A. or M.Sc.	$40.00
For each year of the course leading to the Degree of Ph.D.	$40.00
Graduation fee for M.A. or M.Sc.	20.00
" " " " (*In absentia*)	40.00
" " Ph.D.	30.00
" " D.Sc.	80.00
" " D.Litt.	80.00
" " LL.D. (in course)	80.00

The examination and graduation fee is payable when the candidate presents himself for examination and is not returnable if he is unsuccessful. If, however, a candidate for the Degree of M.A. or M.Sc. fails he may present himself in a subsequent year without further payment of fees. A candidate for the Degree of D.Sc. or D.Litt. in case of failure may present himself in a subsequent year upon payment of an additional sum amounting to one-half of the usual fee for this Degree.

Lecturers, tutors and demonstrators in this University who are proceeding to the Degree of Master of Arts, Master of

Science, or Doctor of Philosophy, shall be exempt from the tuition fees, but will be required to pay the fee for graduation in every case.

No fee shall be charged for the Degree of LL.D., granted "honoris causa."

FEES IN MUSIC.

Regular students, per session	$150.00
(This sum will also cover the fees for the Diploma or Degree examination at the end of each year.).	
Senior Partial Students, per term of 12 weeks	35.00
Junior Partial Students, per term of 12 weeks	28.00

Information regarding fees to be paid by students for class work and by occasional students, as well as regarding fees for certificates and examinations, when these are not covered by the regular fee, will be found in the special syllabus issued by the Conservatorium of Music.

MISCELLANEOUS FEES.

Elocution (optional)	$5.00
Library (optional for students in Medicine; included in sessional fee in the case of all others)	4.00
Gymnasium (optional for undergraduates in Law and Medicine, and also for partial students in all Faculties, included in sessional fee in the case of all others)	2.50
Fee for the McGill Union (optional and payable to the Bursar, or the Secretary of the Union)	5.00
Certificate of standing, as to year of Course	1.00
Certificate of standing, accompanied by a statement of classification in the several subjects of examination	2.00

All applications for certificates must be addressed to the Registrar of the University, accompanied by the required fee.

No certificates are given for attendance on lectures unless the corresponding examinations have been passed.

DEGREES.

I. ORDINARY DEGREES.

In order to obtain the Degrees of B.A.; B.Sc.; B.Arch.; B.C.L.; B.S.A.; M.D., C.M.; and D.D.S., students are required to attend lectures (for length of courses, see pages 8 to 10), to complete the course of study for the Degree sought, to pass all the prescribed examinations during the course, and any special examinations for graduation, and to perform such other exercises as may be prescribed to that end.

The requirements for Degrees in Music are stated on page 180.

II. HIGHER DEGREES.

All theses for Higher Degrees should be sent to the Chairman of the Committee on Graduate Studies. No thesis will be received, or examination granted, until the fee for the Degree has been paid.

Degree of M.A.

Bachelors of Arts of at least one year's standing, who, after graduation, shall have taken for one year a Graduate Course of Study in Arts in the University, previously submitted to and approved by the Committee on Graduate Studies, shall have passed an examination at the end of the year, shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of the Department concerned and by the Committee on Graduate Studies) and shall have performed such other exercises as may be prescribed to that end; *or* Bachelors of Arts of at least two years' standing who shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of the Department concerned and by the Committee on Graduate Studies), shall have passed a special examination for the

Degree, and shall have performed such other exercises as may be prescribed to that end,—the whole to the satisfaction of the Committee on Graduate Studies and also of any other examiners whom the Corporation may associate with that Committee—shall be entitled to the Degree of Master of Arts.

For detailed regulations regarding the Degree of Master of Arts, see under "Graduate School."

All theses for 1910-11 *must be in the hands of the Chairman of the Committee on Graduate Studies on or before April* 10*th*, 1911. *No thesis received after this date will be accepted. The examination will be held in April.*

Degree of M.Sc.

Bachelors of Arts, or Bachelors of Science, or Bachelors of Applied Science of at least one year's standing who, after graduation, shall have taken for one year a Graduate Course of Study in the Faculty of Arts, or the Faculty of Applied Science of the University, previously submitted to and approved by the Committee on Graduate Studies, shall have passed an examination at the end of the year, shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of the Department concerned and by the Committee on Graduate Studies), and shall have performed such other exercises as may be prescribed to that end; *or* Bachelors of Arts, or Bachelors of Science, or Bachelors of Applied Science of at least two years' standing, who shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of the Department concerned and by the Committee on Graduate Studies), shall have passed a special examination for the Degree and shall have performed such other exercises as may be prescribed to that end—the whole to the satisfaction of the Committee on Graduate Studies, and also of any other examiners whom the Corporation may associate with the Committee,—shall be entitled to the Degree of Master of Science.

For detailed regulations regarding the Degree of M.Sc., see under "Graduate School."

All theses must be in the hands of the Chairman of the Committee on Graduate Studies on or before April 10th, 1911. No thesis received after this date will be accepted. The examination will be held in April.

Degree of D.Litt.

Candidates for the Degree of Doctor of Literature must be Masters of Arts, and graduates of at least five years' standing, who shall have distinguished themselves by special research and learning in the domain of literature or philosophy. They are required to present a satisfactory thesis or published work.

Degree of D.Sc.

Candidates for the Degree of Doctor of Science must be Masters of Arts, or Masters of Science, or Doctors of Medicine, and graduates of at least five years' standing, who shall have distinguished themselves by special research and learning in the domain of science. They are required to present a satisfactory thesis or published work.

Degree of Ph.D.

Bachelors of Arts, or Bachelors of Science, or Bachelors of Applied Science of McGill University, or graduates of other universities holding Degrees which shall be accepted by the Committee on Graduate Studies as the equivalent of any of these, who, after graduation, shall have taken a graduate course of study for three years, in the University, or at least one year in the University and not less than two years at some other recognized seat of learning, shall have passed an examination at the end of the course, shall have presented a satisfactory thesis, and shall have performed such other exercises as may be prescribed to that end, the whole to the satisfaction of the Committee on Graduate Studies, and also any

other examiners whom the Corporation may associate with that Committee, shall be entitled to the Degree of Doctor of Philosophy.

For detailed regulations, see under "Graduate School."

Degree of D.C.L.

Candidates for the Degree of Doctor of Civil Law must be Bachelors of Civil Law of at least twelve years' standing. They are required to pass a special examination for the Degree and to present a satisfactory thesis or published work on some subject selected or approved by the Faculty of Law. For details of the examination, etc., see under Faculty of Law, page 292.

Degree of LL.D.

Except as hereinafter mentioned, the Degree of Doctor of Laws is given only as an honorary Degree.

Any person who matriculated and attended lectures in the Faculty of Arts before the 31st January, 1899, may proceed to the Degree of Doctor of Laws, in course, upon the following conditions:—

Candidates for the Degree of LL.D., in course, must be Masters of Arts of at least twelve years' standing, and are required to prepare and submit to the Faculty of Arts, not less than three months before proceeding to the Degree, twenty-five printed copies of a thesis on some literary or scientific subject which has been *previously approved by the Faculty*. The thesis must exhibit such a degree of literary or scientific merit, and give evidence of such originality of thought or extent of research as shall, in the opinion of the Faculty, justify recommendation for the Degree.

Candidates are also required to submit, with their thesis, a list of books treating of some one branch of literature or of science satisfactory to the Faculty, in which they are prepared to submit to examination, and in which they shall be examined, unless otherwise ordered by the Faculty.

III. ADMISSION "AD EUNDEM GRADUM."

The following are the regulations applicable to admission "ad eundem gradum":—

Extract from the Statutes, Chap. VIII.

"Graduates of other universities, desirous of admission to "the like Degree in this University, may be so admitted by "the Corporation; due enquiry being first made as to their "moral character and sound learning, and opportunity given "to the several Faculties, or the Committee on Graduate "Studies, as may be required, to make such representation in "the premises as they may see fit. Provided always, that, "except in the case of candidates proceeding to a higher De-"gree, such admission shall not be put to vote until after "three months' notice, unless by unanimous consent, and shall "not be ordered, if as many as five members of the Corpora-"tion shall vote against it."

Extracts from the Regulations of the Corporation.

"In all cases in which anyone is proposed for any 'ad "eundem" Degree, it shall be necessary for the member or "members of the Corporation making such proposal, to state "in writing therewith the grounds upon which the granting "of such Degree is advocated, and when the case shall be re-"ferred to the Faculties, under Chap. VIII. of the Statutes, "copies of such proposal and grounds shall be transmitted to "the Faculties by the Registrar for their consideration."

Note. In considering applications under the above regulations, the Faculties will require as "grounds" the pursuit of a course of study or research in this University; association with the academic work of the University; or similar qualifications.

Admission "ad eundem gradum" is not granted merely as a titular distinction.

"The Degree of Bachelor of Arts or Bachelor of Science, "ad eundem, shall be granted only to candidates who are

"proceeding to a higher Degree, and admission to the lower "Degree shall be withheld until the higher Degree has been "granted."

"Graduates of all universities desiring an ad eundem "Degree of this University, as a condition of entering on "a course of study leading to a higher Degree, shall make "application to the Committee on Graduate Studies, who shall "thereupon report their recommendation to Corporation, "which body shall immediately take action without previous "reference to the various Faculties."

The Chairman of the Committee on Graduate Studies is Dr. Frank D. Adams.

CONDUCT AND ATHLETICS.

MORALS AND DISCIPLINE.

1. University discipline shall be exercised by the several Faculties, and by the Committee on Morals and Discipline, subject in the cases hereinafter mentioned to revision or confirmation by Corporation.

2. Subject to the provisions of the following section, each Faculty shall be entitled to exercise University discipline over its own students.

3. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be dealt with by a Standing Committee of Corporation, to be known as the Committee on Morals and Discipline, which shall consist of the Vice-Principal, the Deans of the several Faculties, one member of the Board of Governors and another member of Corporation who must be outside of the University staff. The two members last named shall be appointed annually at the regular meeting of the Corporation in February. The Committee shall have power to add to their number the President and Vice-President of the Students' Council, in cases in which that body has taken action and made a report.

4. All such cases of discipline as are referred to in subsection 3 shall be reported to the Principal, or, in his absence, to the Vice-Principal, or, in the absence of both, to the senior Dean present in the City. If the Principal, or, as the case may be, the Vice-Principal or the Dean, deems action necessary, the matter shall be reported to the Committee on Morals and Discipline.

5. When sentence of expulsion or of suspension for more than three months has been pronounced by a Faculty, or

by the Committee on Morals and Discipline, the Corporation may entertain an appeal.

6. "University discipline" shall mean any appropriate method of exercising authority over students, and shall, but without prejudice to the foregoing generality, include the power of expulsion, suspension, disqualifying from competing for scholarships, exhibitions, medals, prizes or honours, imposing fines, not exceeding $25, on any student, levying assessments for damage done, reporting to parents or guardians and admonition.

7. Any student found guilty of immoral, dishonest, disorderly or improper conduct, or of wrongfully causing damage to person or property shall be liable to University discipline.

8. If on an occasion of general disorder on the part of a year, class, or group of students, damage be done to University property, or acts committed meriting discipline, and the individuals who have done such damage, or committed such acts, have not been discovered, an assessment to cover the damage may be laid, or a fine imposed, or both, on all the members of such year, class or group.

9. While in college, or in the college grounds, students shall conduct themselves in the same orderly manner as in the class-rooms. Smoking is prohibited in the college buildings, except in such rooms, if any, as may be set apart for that purpose. Any Professor observing improper conduct on the part of a student in the college buildings or grounds may admonish him, and, if necessary, report him to the Dean of the Faculty in which he is enrolled. Without, as well as within the walls of the college, every student is required to maintain a good moral character.

COLLEGE GROUNDS AND ATHLETICS.

The management of the college grounds and of out-door athletics and sports is under the control of the Athletics Committee of Corporation.

This Committee is responsible for the general maintenance of all University grounds and retains the ultimate authority

and power of supervision in all matters affecting athletics in the University.

The following extracts are made from the rules and regulations of the Committee, for the guidance of members of the University and the several athletic clubs and associations which are from time to time permitted to use the grounds:

During the summer season the Sherbrooke Street gates shall be closed between 10 p.m. and 6 a.m. every day, and the University and McTavish Street gates between 6 p.m. and 7 a.m. on week days and the whole day on Sunday.

Such persons as are entitled to use the grounds shall be provided with tickets renewable each year. Those entitled to tickets are the members of the University and prominent benefactors, and the families of Governors and Professors.

The several Clubs may be permitted to issue special tickets, entitling the holders to admission to the grounds for the purpose of viewing matches, or for other special occasions of public interest.

All students desirous of taking part in football matches, or otherwise engaging in violent athletic contests, must pass a medical examination, to be held under the direction of the Medical Director of Physical Training. A complete record of all such examinations shall be kept by the Director or some other officer appointed to this duty. The managers and captains of Clubs, or other responsible executive officers, are required to insist upon the strict observance of the rule in regard to medical examination, and all the rules and regulations of the Committee which concern them.

All Clubs must submit their regulations, rules, and by-laws, and any changes in the same, for the approval of the Committee. They must make application for the use of such portions of the grounds as they require, and for any special privileges.

Clubs must not engage in matches with outside clubs except with the approval of the Committee.

The Athletic Association must submit its programme for each year for the approval of the Committee.

All students in good standing who are taking a course of study held to be sufficient by a special Committee of the Faculty in which they are enrolled will be allowed to take part in athletics, subject, however, to the general regulation regarding medical examination.

Suspension from lectures for any cause, or absence from more than one-eighth of the total number of lectures given in any course, as shown by the monthly reports furnished to the Dean of each Faculty by the several Professors and Lecturers, shall be considered as sufficient ground to disqualify a student for engaging in athletic contests.

All students of the University are required to pay a fee of three dollars ($3.00) for the use of the grounds. (This fee is included in the sessional fee except in the case of students in Medicine.) The amount so paid is handed over to the Executive of the Students' Council, less about $800, which is expended in the upkeep of the grounds in connection with athletics, and is by this body expended in the interest of College athletics.

The amount derived as grounds and athletics fees from the students of the Royal Victoria College is placed at the disposal of the Committee in charge of the grounds, for expenditure in the interests of women-students.

The annual sports of the University are held on the second or third Friday of October in each year. The day is observed as a holiday.

UNIVERSITY ATHLETIC ASSOCIATION.

All matters connected with athletics at the University are under the direct supervision of the University Athletic Association, which, in turn, is responsible to the "Athletics Committee of Corporation." The executive of the Athletic Association consists of the presidents of the various clubs of the Association, twelve in number.

The Track Club has its special field in regulating and encouraging "Track and Field Athletics." The management of the Inter-class sports and of the annual University sports is in the hands of this club.

The Rugby Football Club is represented by a senior and intermediate team in the Intercollegiate Union, and a junior team in the Q.R.F.U. In addition to these championship matches, a series of inter-class matches is played annually for the "Wood Cup."

The Skating and Hockey Club has a well established reputation. As in football, a series of inter-class games is played annually, in this case for the "Capper Trophy."

The Association Football Club, the Basket-Ball Club, the Boxing Club, the Cricket Club, the Harriers' Club, the Lawn Tennis Club, the Wrestling Club, the Fencing Club, and the Swimming Club, are the remaining clubs under the Association. Most of them conduct inter-class matches, and have a senior team, which represents the University in outside matches.

GYMNASIA.

(1) *The University Gymnasium.*

Medical Director of Physical Education:—F. W. Harvey, B.A., M.D.

Instructor:—W. J. Jacomb.

The classes, which are open to men students of all Faculties, will meet at the University Gymnasium at hours to suit, as far as possible, the convenience of students.

Instruction, apart from the regular classes, is given in boxing, wrestling, fencing, jiujitsu and swimming for each of which a special fee is required.

Special attention is given to the application of exercise in treating cases of weakness or deformity.

The Wicksteed Silver and Bronze Medals for Physical Culture (the gift of Dr. R. J. Wicksteed) are offered for competition to students of the graduating class and to students who have had instruction in the gymnasium for

two sessions; the silver medal to the former, the bronze medal to the latter.

The award of these medals is made by judges appointed by the Corporation of the University.

Every competitor for the silver medal is required to lodge with the judges, before the examination, a certificate of good standing in the graduating class, signed by the Dean or Registrar of the Faculty to which he belongs, and the medal will not be awarded to any student who may fail in his examination for the Degree.

(2) *The Royal Victoria College Gymnasium.*

Medical Director of Physical Education:—F. W. Harvey, B.A., M.D.

Physical Director:—E M. Cartwright, Graduate and former Assistant of the Chelsea College of Physical Education, London, England.

Classes in educational gymnastics are conducted for all undergraduate students in the gymnasium of the Royal Victoria College. All students are medically examined at the beginning of their First Year and are required to pass satisfactory physical tests before taking part in any of the outdoor or indoor physical exercises organised by the Physical Department, whether educational or recreational.

Undergraduate students of the First and Second Years are required to attend two educational gymnastic classes per week. Undergraduate students of the Third Year are required to attend one educational gymnastic class per week. Undergraduate students of the Fourth Year wishing to enter educational gymnastic classes are expected to attend regularly. Undergraduate students entering the Royal Victoria College in their Third or Fourth Year are required to attend the educational gymnastic classes twice a week, for one session, unless excused for reasons deemed sufficient by the Department.

Strathcona Prizes.—Three first prizes of $8, $10, and $12, and three second prizes of $5, $6, $9, are open to stu-

dents for competition in the Second, Third and Fourth Years respectively. Two prizes of $5 are offered for competition to the students of the First Year; one for students who have taken part in educational gymnastics at school, and the other for students who have had no previous physical training.

All competitions will be held under the following regulations:—

1. Competitors will be awarded 50% of the marks on the work of the session.

2. No prize shall be awarded unless the judges consider the work up to a standard of 75%.

3. The prizes shall not be awarded in the Second, Third and Fourth Years should the winner fail in obtaining her full academic standing. The prizes in the First Year shall not be awarded if the winners fail in more than one subject at the Sessional Examinations.

4. Competitors will be judged on the work taught in the Gymnasium during the session, the Physical Director arranging all details concerning the competition. A programme of the competitions will be posted not later than February 15th.

5. Judges for these competitions shall be appointed yearly by the Corporation, on the recommendation of the Department.

ACADEMIC DRESS.

Professors, lecturers and students are required to wear academic dress at lectures, except in those cases in which a dispensation shall have been granted by the Faculty.

Undergraduates shall wear a plain black stuff gown, not falling below the knee, with round sleeve cut above elbow.

Bachelors of Arts.—Black stuff gown, falling below knee, with full sleeve cut to elbow and terminating in a point (similar to that of the Cambridge B.A.); hood, black silk, lined with pale blue silk and edged with white fur.

Bachelor of Science.—The same gown as Bachelors of Arts; hood, black silk, lined with yellow silk and edged with white fur.

Bachelor of Civil Law.—The same gown as Bachelors of Arts; hood, black silk, lined with French grey silk and edged with white fur.

Bachelor of Architecture.—The same gown as Bachelors of Arts; hood, black silk, lined with white silk and edged with white fur.

Bachelor of Music.—The same gown as Bachelors of Arts; hood, black silk, lined with pale mauve silk, and edged with white fur.

Master of Arts.—Black gown of stuff or silk, falling below knee, with long sleeve with semi-circular cut at the bottom (similar to that of the Cambridge M.A.); hood, black silk, lined with pale blue silk.

Master of Science.—The same gown as Masters of Arts; hood, black silk, lined with yellow silk.

Doctor of Medicine.—The same gown as Masters of Arts; hood, scarlet cloth, lined with dark blue silk.

Doctor in Dental Science.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pink silk.

Doctor of Laws.—The same gown as Masters of Arts; hood, scarlet cloth, lined with white silk.

Doctor of Literature.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pale blue silk.

Doctor of Science.—The same gown as Masters of Arts; hood, scarlet cloth, lined with yellow silk.

Doctor of Music.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pale mauve silk.

Doctor of Philosophy.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pale green silk.

Doctor of Civil Law.—The same gown as Masters of Arts; hood, scarlet cloth, lined with French grey silk.

Doctors of Laws, Doctors of Civil Law, Doctors of Literature, Doctors of Science, Doctors of Philosophy and Doctors of Music shall be entitled to wear for full dress a robe of scarlet cloth (similar to pattern to that of the Cambridge LL.D.) faced with silk of the same colour as the lining of their respective hoods.

All hoods shall be in pattern similar to that of the Masters of Arts of Cambridge University.

Undergraduates and graduates shall wear the ordinary black trencher with black tassel, but Doctors of Laws, Doctors of Civil Law, Doctors of Literature, Doctors of Science, Doctors of Philosophy and Doctors of Music shall wear for full dress a black velvet hat with gold cord, similar to that worn by Doctors of Laws of Cambridge University.

Samples of the colours of the linings of all hoods shall be kept for inspection in the office of the Registrar.

SPECIAL INFORMATION REGARDING THE FACULTY OF ARTS.

THE SESSION 1910-1911 WILL OPEN ON SATURDAY, OCTOBER 1ST, 1910. STUDENTS ENTERING THE UNIVERSITY WILL REGISTER AT THE REGISTRAR'S OFFICE ON SEPTEMBER 28TH, 29TH AND 30TH; STUDENTS PREVIOUSLY ENROLLED WILL REGISTER IN THE SAME PLACE ON OCTOBER 1ST.*

Information on the following matters will be found by referring to the pages mentioned:—

	PAGES
Admission of partial students	14
Attendance	43
Exhibitions and Scholarships	48
Fees	71
Matriculation	20
Medals and Prizes	67
Summer Classes	15

For Time Tables of Lectures and Examinations, see first part of Calendar.

REGULATIONS FOR THE DEGREE OF B.A.

After passing the matriculation examination, an undergraduate, in order to obtain the Degree of B.A. or B.Sc., is required to attend regularly the appointed courses of lectures for four years. (Undergraduates are arranged in years, from First to Fourth, according to their academic standing.) The conditions of passing into the last three years of the undergraduate course are stated on page 110.

Before October 10th (except in special cases), every undergraduate is required to submit to the Faculty, through the Dean's office, for approval, a written statement of the sub-

* For full particulars regarding registration see page 43.

jects he proposes to study during the session. He will not be allowed to discontinue any of these, if approved, or begin or obtain credit for an examination in any other, without the special permission of the Faculty.

I. ORDINARY COURSE FOR THE DEGREE OF B.A.

First Year.

Greek, 1 *or* 2, (page 115) *or* Latin, 1, (page 118).
English, 1A, 1B, (page 122) and History, 1 (page 148).
Mathematics, 1—Algebra, Geometry and Trigonometry—(page 155).
Latin, 1 (page 118), *or* Greek, 1 *or* 2 (page 115), *or* French, 1, 2 (page 129), *or* German, 1 or 2 (page 133), *or* Spanish, (page 136).
Physics, 1 (page 155).

B.A. students taking both French and German in the First Year may be exempted from First Year Physics, which they are required to take in the Second Year, together with some half-course of the Second Year. Such students may take their Second Year Science subject in the Third or Fourth Year and shall be required to obtain at least 50 per cent. of the maximum number of marks allowed for it.

German may be taken instead of Trigonometry by students who intend to read for Modern Language or English Honours. This option will, however, be granted only on the recommendation of the Departments concerned.

French cannot be taken as a qualifying option in the First Year, except by students who have passed the matriculation examination in this subject.

An additional language may be taken as an extra subject in the first two years, if application be made to, and permission obtained from the Faculty at the beginning of the session. Credit will be given for it on application.

First Year students are under the immediate direction of an Advisory Committee, consisting of all the members of the staff who are engaged in their instruction. A system of supplementary tutorial teaching is now in operation in this Year.

For regulations regarding advancement to the Second Year, see page 110.

Advanced Courses.—A student qualified to take work of a more advanced character than the ordinary work of the First Year in any subject, shall, with the consent of the B.A. Advisory Committee, take such advanced work in that subject as the Department concerned may recommend, or may substitute another ordinary subject for the subject in question. This regulation applies only to students whose qualifications are of exceptional character.

Students taking the work of advanced courses may be excused from the work of the corresponding ordinary courses, on the recommendation of the Professor. No exemptions from other subjects will be granted to students in advanced courses.

An outline of the First Year Course for the Diploma of Commerce will be found on page 177.

Second Year.

English Composition, 2B (page 123).
Latin, 2 (page 118) *or* Greek, 3 (page 116).
and *three* of the following:
Greek, 3 (page 116) *or* Latin, 2 (page 118).
English, 2A (page 122).
French, 3, 4 (page 130).
German, 3 (page 133).
Semitic Languages, A (1) and B (page 138).
Psychology and Logic, 1A and 1B (page 143).
Economics, 2 (page 151) and History, 2 (page 149).
Mathematics, 2 (page 155).
Elementary Biology [Zoology, 1A (page 172 and Botany, 1 (page 167)
Chemistry, 1 (page 161).
Physics, 2 (page 159)—only for students taking the advanced course in Mathematics.

Students intending to take the double course in Arts (B.A.) and Applied Science must take Mathematics and Chemistry; those intending to take the double course in Arts (B.A.) and Medicine must take Chemistry and Biology.

Advanced Courses will be offered in the Second Year as in the First.

Students taking an advanced course may be excused from the work of the corresponding ordinary course, on the recommendation of the Professor. An exemption from one other of the three subjects specified above may be granted to Honour students in Mathematics who take both the ordinary and the advanced course in Mathematics, but to no others.

An outline of the Second Year Course for the Diploma of Commerce will be found on page 177.

For regulations regarding advancement to the Third Year, see page 110.

Third and Fourth Years.

The subjects of the Third and Fourth Years are arranged in the following divisions:—

Language and Literature.	History, Philosophy and Law.	Science.
English, 3A, 3B, 4A, 4B and 3C and 4C (page 123).	Philosophy, 2, 3, 4, *or* 5 (page 143).	Mathematics, 3 (page 156).
Latin, 3 (page 119).	History, 3 (page 149).	Mechanics, 4 (page 160), and Astronomy, 4 (page 156). (Two half courses).
Greek, 4 (page 116).	†Economics, 2 (page 152).	Physics: Sound, Light, Heat (full course,) 2 (page 159).
Sanskrit, 1A, 1B (page 120).	Political Science, 3 (page 152).	Electricity and Magnetism (full course), 3 (page 154).
Comparative Philology (half course), A, B (page 121).	Education (page 153).	Chemistry, 2, 3, 4; 5, 6; *or* 7, 8 (page 161).
French, 5 (page 131).	Constitutional Law (page 154) (half course).	Geology, 2 (page 163).
German, 4 (page 134).	Roman Law (page 155).	Zoology, 2 (page 173).
Italian, in alternate years (page 135).		Botany, 2, 3 (page 168).
Semitic Languages, A (2), A (3) and C (page 138).		*Physiology.
		*Anatomy.

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* These courses in the Faculty of Medicine are accepted as the equivalents of ordinary courses in the Faculty of Arts in the case of Double Course students in Arts and Medicine, but not otherwise.

† This subject can be selected only by students who have studied it in the Second Year.

From the above divisions six courses are to be selected by each student in the Third and Fourth Years, three in each Year. Each will be studied in lecture courses extending over not more than four hours per week, with collateral reading, and, in the case of the science subjects, laboratory work. One subject chosen in the Third Year *must* be continued by every student in his Fourth Year (Political Science, 3, will be accepted as a continuation of Economics, 2, and *vice versa*); two subjects *may* be continued if application to that effect be granted by the Faculty or the Advisory Committee of the Faculty. Of the whole six courses, one *must* and three *may* be chosen by all candidates from the list of subjects included under the head of Science, except when Chemistry or Biology has been selected as an option in the Second Year, in which case no science subject need be taken. Lectures in Honour Courses are open to candidates for the ordinary degree in the Third and Fourth Years, and may be substituted by them for an equivalent amount of the work prescribed for that Degree in the proper year.

In addition to the six courses, a course of one hour a week in English Composition (3C, 4C) must be taken by every candidate for the ordinary B.A. Degree in the Third and Fourth Years, and also by Honour students in English.

The Advisory Committee will meet not later than October 1st in each session, and will report to the Faculty on the subjects selected by students in each of the four Years.

In order to obtain an ordinary B.A. Degree of the first class, a candidate must obtain not only the required aggregate of marks (viz., three-fourths of the maximum), but also first class standing in three of his subjects, and not less than second class in any subject.

For arrangements whereby a student can take the course in Arts and Applied Science or Law in six years, or Arts and Medicine in seven years, see page 111.

II. HONOUR COURSES FOR THE DEGREE OF B.A.

Honours of First, Second, or Third Rank will be awarded to successful candidates in any Honour Course established by the Faculty, provided they have passed creditably the regular examinations in all the subjects proper to their Year.

A student proposing to read for an Honour Course:—

(1) Must satisfy the Department of his qualifications to proceed with the subject or subjects in question;

(2) Must, while attending lectures, make progress satisfactory to the Department. In case his progress is not satisfactory he may be notified by the Faculty to discontinue attendance.

Students who wish to graduate with Honours in any subject are strongly recommended to take the Advanced Courses in these subjects in the First and Second Years, where such are provided.

A candidate for Honours must take the ordinary course in the subject in which he is reading for Honours, but where the Honour Course corresponds to two ordinary subjects, a candidate may, at the discretion of the Department, be exempted from attendance on lectures in these ordinary subjects for a number of hours not exceeding four weekly. In addition to the ordinary subject specified above, he is required to take a second ordinary subject, which may be determined by the Department in which he is a candidate for Honours. The Faculty may, on the recommendation of the Department, exempt any student from the obligation to take a second ordinary subject.

A student who desires to be a candidate for B.A. Honours must have taken at least Second Rank Honours in the Third Year. In this case he shall be required to take only one subject in his ordinary course, viz., that in which he is reading for Honours. A candidate, however, who obtains Third Rank Honours at the B.A. Examinations, will not be allowed credit at the end of the session for the exemption from other ordinary subjects, unless the examiners certify that his knowledge of the whole Honour Course is sufficient to justify it.

Honour lectures are open to all partial students who can satisfy the Professor of their fitness to proceed with the work of the course. Such students will not be ranked with undergraduates in the examination lists. They are also open to candidates for the ordinary Degree in the Third and Fourth Years, and may be substituted by them for an equivalent amount of the work prescribed for that Degree in the proper year.

No student is allowed to attend two Honour Courses without the special permission of the Faculty.

Note.—For subjects of Ordinary Course, see pages 96 to 98.

The Honour Courses offered are as follows:—

I. CLASSICS.

Third Year:—Greek—Lecture Courses, 4, 5 (page 116).
Latin— " " 3, 4 (page 119).

Fourth Year:—Greek—Lecture Courses, 4, 5 (page 116).
Latin— " " 3, 4 (page 119).

II. LATIN AND ENGLISH.

Third Year:—Latin—Lecture Courses, 3, 4 (page 119)
English " " 5 and three other courses chosen from 9, 10, 11, and 12 (page 126).

Fourth Year:—Latin—Lecture Courses, 3, 4 (page 119).
English—One hour per week of Language, and three of the courses enumerated above which have not been taken in the Third Year

III. LATIN AND FRENCH.

Third Year:—Latin—Lecture Courses, 3, 4 (page 119).
French—Lecture Courses, 5, 7, 9 (page 131).

Fourth Year:—Latin—Lecture Courses, 3, 4 (page 119).
French—Lecture Courses, 5, 7, 9 (page 131).

IV. LATIN AND GERMAN.

Third Year:—Latin—Lecture Courses, 3, 4 (page 119).
German—Lecture Courses, 4, 6, 7, 8 (page 134).
Fourth Year:—Latin—Lecture Courses, 3, 4 (page 119).
German—Lecture Courses, 4, 6, 7, 8 (page 134).

V. ENGLISH.

Third Year:—Lecture Courses, 3A, 3B, 3C, 5, 10, 11, 12, and 13 (page 123).

Fourth Year:—Lecture Courses, 4A, 4B, 4C, and *either* 6, 7, 8, *or* 10, 11, and 12, with one hour a week in Language (6), (page 125).

VI. MODERN LANGUAGES.

Third and Fourth Years:—French—Lecture Courses, 5, 7, 9, 10 (page 131).
(Session 1910-11) German—Lecture Courses, 4, 6, 7, 8 (page 134).

Third and Fourth Years:—French—Lecture Courses, 6, 8, 9, 10 (page 131).
(Session 1911-12) German—Lecture Courses, 5, 6, 8 (page 134).
Comparative Philology (for Third Year students) (page 121).

VII. ENGLISH AND FRENCH.

The courses in English and French will be the same as are prescribed in the first case for the Honour Course in Latin and English (II), and in the second for the Course in Latin and French (III).

VIII. ENGLISH AND GERMAN.

The courses in English and German will be the same as are prescribed (in the case of English) for the Honour Course in Latin and English (II), and (in the case of German) as under Latin and German (IV).

IX. SEMITIC LANGUAGES.

One of the following:—

Hebrew and one other Semitic language (page 139).
Arabic and one other Semitic language (page 140).
Aramaic and one other Semitic language (page 141).

X. GREEK AND HEBREW.

Third Year:—Greek—Lecture Courses, 4, 5 (page 116).
Hebrew— " " (page 139).
Fourth Year:—Greek—Lecture Courses, 4, 5 (page 116).
Hebrew— " " (page 139).

XI. MENTAL AND MORAL PHILOSOPHY.

Third Year:—Lecture Courses, 5A, 5B; *or* 7 with 8 or 9 (page 145).
Fourth Year:—Lecturer Courses 11, 12, 13, 14, 15 (page 146).

XII. ECONOMICS AND POLITICAL SCIENCE.

Third Year:—Courses 2, 3, 4, 5; together with ordinary History, or French, or Philosophy, or Roman Law of the Third Year.
Fourth Year:—Courses 6, 7, 8, 9, 10; together with a half course in History, French or Philosophy, as arranged in consultation with the Department.

XIII. HISTORY.

The lecture courses are shown on pages 149 and 150, but in addition to what is there specified, a certain amount of work must be done in another Department, as may be arranged with the Professor of History.

XIV. HISTORY AND ENGLISH.

Third Year:—History—Lecture Courses 3, 5, 10 (page 149), and thesis in connection with Course 10.
English—Any courses aggregating six hours a week may be chosen from the programme of the English Department for the Third and Fourth Years (pages 123 to 128).

Fourth Year:—History—Lecture Courses 4, 8, 10 (page 149).
English—Any courses aggregating six hours a week may be chosen from the programme of the English Department for the Third and Fourth Years, so long as these courses have not already been taken by the student in his Third Year (pages 123 to 128).

A special thesis of advanced character is also exacted from Fourth Year Honour students in History and English.

XV. MATHEMATICS AND PHYSICS.

Third Year:—Mathematics—Lecture Courses 8, 9, 10, 11 (page 157).
Physics—Lecture Courses 3, 4, 5 (in part) (page 159).

Fourth Year:—Mathematics—Courses selected from 12, 13, 14, 15, (page 157).
Physics—Lecture Course 5 (page 160).

XVI. CHEMISTRY.

Third Year:—Chemistry—Lecture Courses 2, 3, 4 (page 161).
(Extra reading and laboratory work.)
Physics—Lecture Course 2 (page 159).
A half-course in Calculus or Biology, or Geology, or Mineralogy.

Fourth Year:—Chemistry—Lecture Courses 5, 6, 7, 8 *or* 7, 8, 9 (page 162).
Physics—Lecture Course 3 (page 159).

XVII. GEOLOGY AND MINERALOGY.

Third Year:—Geology—Lecture Course 2 (page 163).
Mineralogy—Courses 3 and 4 (page 164).
Zoology—Lecture Course 2 (page 173).
Chemistry—Lecture Course 2 or 3 and 4 (page 161).

Fourth Year:—Geology—6, 7, 8, 9, 10 and 11 (page 165), Lectures, Laboratory Work, Field Work, Colloquium, Reading.
Mineralogy, 5 (page 165).
Botany, one half-course, 3*a* (page 169).

XVIII. BIOLOGY.

Third Year:—Botany—Lecture Course 2 (page 168), and a special course of reading and weekly themes.
Zoology—Lecture Courses 1B, 2 (page 172). and Darwin's Origin of Species.
Geology—Lecture Course 2 (page 163).

Fourth Year:—Botany—Lecture Course 3 (page 169), and a special course of reading and weekly themes.
Zoology—Lecture Courses 3A and 3B (page 173), and essays on selected subjects.

3. HONOUR COURSES FOR SPECIALISTS IN ONTARIO.

A number of courses, leading to a Degree in Honours in McGill University, and qualifying for specialists' standing in the province of Ontario, have been accepted by the Education Department of that Province. Full details of these courses may be obtained on application to the Dean of the Faculty of Arts. The provincial regulation as to specialists' standing in Ontario is as follows:—

"51. (1) Any person who obtains a Degree in Arts in the Honour Department of Mathematics, Science, Classics, English and History, Moderns and History, or French, and German, as specified in the Calendar of any University in Canada and accepted by the Education Department, who has graduated with at least second class Honours (or 66 per cent., in each subject of such Honour Department) and who has been in actual attendance in such department at a University for not less than two academic years, shall be en-

titled to the non-professional qualification of a specialist in such Department."

Graduates of McGill University who, having taken any of these courses, have obtained the necessary standing in Honours, as stated in the foregoing regulation, will, on attending such courses and passing such examinations in subjects relating to the Art of Teaching and School Management as are prescribed by the Department of Education of the Province of Ontario, be qualified as specialists in that province. Undergraduates will not be permitted to substitute these courses for those of the regular McGill curriculum, except as a whole.

ORDINARY AND HONOUR COURSES FOR THE DEGREE OF B. Sc. (ARTS).

The ordinary B.Sc. course in Arts has been arranged to give students a thorough training, suitable for those wishing to study pure science as a preliminary to entering a business or profession or to teaching science in schools, or simply as part of a general scientific education. The ordinary course, therefore, involves the study of several sciences up to a moderately high university standard and does not include a highly detailed specialised study of any one science, such as is necessary before scientific research work or university teaching can be profitably undertaken.

Students wishing to specialise with a view to research work and university teaching should take an Honour B.Sc. course. The First Year curriculum, however, is the same for those taking either the pass or the Honour Degree.

First Year.

(1) English, 1A, 1B, (page 122.)
(2) German, (Beginners), page 133.)
(3) Mathematics 1, (page 155.)
(4) Physics 1, (page 155), and practical work.
(5) Chemistry 1, (page 161), and practical work.

Second, Third and Fourth Years.

At the beginning of the Second Year, students may elect to take either an ordinary or an Honour course. Each student electing to take an ordinary course will be required to select three subjects from the following list and to take the theoretical and practical ordinary Degree courses provided in each of them for each of the three years. In addition, he must take English Composition in his Second Year unless exempted by the Professor of English:—

(1) Mathematics, (2) Physics, (3) Chemistry, (4) Botany (5) Zoology, (6) Geology with Mineralogy.

A half course in Education may be taken by students for the ordinary B.Sc. Degree, in each of the Third and Fourth Years, as an option for one of the science subjects prescribed above.

Ordinary B.Sc. students who obtain 75% of the total marks during the three years will be awarded a first class. Extra courses in additional subjects may be taken only on the recommendation of the B.Sc. Committee.

A student proposing to read for an Honour course must select one principal subject from the following list, namely, Mathematics, Physics, Chemistry, and must satisfy the department concerned of his qualifications to proceed with the study of it.* He will be required to take the lectures and practical work provided for Honour students in that subject during each of the three years, and, in addition, such other courses on allied subjects as shall be directed by the Professor of the principal subject. All students reading for Honours will be required to take a course in scientific German during their Second Year.

The Honour courses include a detailed study of the higher branches of the principal subject in all its aspects, including the methods of research work, both practical and theoretical, and an Honour course in all cases will involve a greater total

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* Honour courses in other sciences may be arranged on application to the Dean who will communicate with the Advisory Committee.

amount of work than the total amount in an ordinary course, although the ordinary course involves a study of three subjects. Students, therefore, should seek advice and exercise due caution before electing to take an Honour course.

Students taking an Honour course, if sufficiently advanced, may be allowed by the Professor of their principal subject to devote a portion of their time to research work and the results of this work may be submitted to the examiners at the final examination and shall be taken into account in deciding the class to be awarded to the candidate. In no case, however, shall any such research work be taken in lieu of such competent general knowledge of the principal subject as should be possessed by a candidate for Honours. First, second and third class Honours will be awarded and the whole of the work done by the student during the three years shall be taken into account in deciding his class. No student shall obtain a first class who has not obtained 70% of the total marks during the three years and no student shall obtain a second class who has not obtained 60% of the total marks, and no student a third class who has not obtained 50%. In any case, no student shall be awarded Honours who, in the opinion of the Professors of his principal subject, does not possess such a competent knowledge of his subject as ought to be acquired by an Honour student.

Candidates for Honours who fail may be excused such part of an ordinary B.Sc. course as the work they have done is clearly equivalent to. Candidates for Honours who, in the opinion of the Professor of their principal subject, are not making satisfactory progress may be required to discontinue their Honour course and may be excused such part of an ordinary course as the work they have done is equivalent to.

Details of the Honour course in each subject will be found in the section of the Calendar dealing with the courses in that subject.

The Honour courses should be adapted to the needs of particular students. The following are typical proposed Honour courses in Chemistry and Physics:

CHEMISTRY.

Second Year.—Chemistry, 3 lectures and 9 hours practical.
Physics, 2 lectures and 3 hours practical.
Biology or Geology, or Mineralogy, 2 lectures and 6 hours practical.

Third Year.—Chemistry, 5 lectures and 12 hours practical.
Physics, 2 lectures and 8 hours practical.
Mathematics, (½ course on calculus, etc.), 1 hour.

Fourth Year.—Chemistry, 3 lectures and 18 hours practical.
Optional course on Thermodynamics.

PHYSICS.

Second Year.—Physics, 4 lectures and 6 hours practical.
Dynamics, 2 lectures.
Mathematics, 4 lectures.
Physical Chemistry, (half-course) 2 lectures.

Third Year.—Physics, 5 lectures and 5 hours practical.
Mathematics, 2 hours.
Dynamics, 2 hours.
Physical Chemistry, 2 hours and 4 practical.

Fourth Year.—Physics, 6 hours lectures and 12 practical.
Mathematics, 2 hours.

EXAMINATIONS IN ARTS.

1. There are two examinations in each year, viz., at Christmas and at the end of the Session. Successful students are arranged in three classes at the sessional examinations. Those who obtain 75 per cent. and over are placed in the First Class, those who have between 60 and 75 per cent. in the Second Class, and those with from 40 to 60 per cent. in the Third Class.

Christmas examinations will be held in all the subjects of the First and Second Years, and are obligatory on all undergraduates, and also on all partial students of the First Year, unless they have been specially exempted. Partial students of the First Year, who fail in the Christmas exam-

ination, will be requested to withdraw from the class. *Undergraduates and conditioned students of the First Year who fail in more than three subjects at the Christmas examinations will not be allowed to proceed with their course for the remainder of the Session.* Twenty-five per cent. of the marks given for the sessional work in each subject will be assigned for the results of the Christmas examinations. Students prevented by illness from attending the Christmas examinations will, on presenting a medical certificate, be given sessional standing on the results of the April examinations, if they have obtained an average of 40 per cent. at the two mid-term examinations, or (where no mid-term examinations are given) an average of 40 per cent. in class exercises. Christmas Examinations in the Third and Fourth Years may be held at the option of the Professors. When held, the same value will be assigned to them as in the case of the First and Second Years.

2. The following are the regulations for advancement to the Second, Third and Fourth Years of the undergraduate course and are subject to the condition that a student shall not be allowed to continue a subject of the preceding year in which he has not made good his standing, except in the case of compulsory subjects in the Second Year.

Advancement to the Second Year—A student who has failed to complete one of the ordinary courses of the First Year may enter the Second Year without special permission of the Faculty.

A student who has failed to complete two of the ordinary courses of the First Year shall be permitted to enter the Second Year but only on the condition that an average of 50% has been obtained in the other subjects of the First Year Course.

Advancement to the Third Year.—A student may be allowed to proceed to the Third Year with one subject uncompleted if that subject belongs to the Second Year.

Advancement to the Fourth Year.—A student may be allowed to proceed to the Fourth Year with one subject uncompleted if that subject belongs to the Third Year.

Repeating Year.—By special permission of the Faculty, a student who is required to repeat his year may on application in writing:—

(a) be exempted from attending lectures and passing examinations in the subjects in which he has already passed.

(b) be permitted to take, in addition to the subjects in which he has failed, one of the subjects of the following year of his course.

N.B.—The choice of subjects must involve no conflict of hours as printed in the Time-table.

3. Examinations supplemental to the sessional examinations will be held in September, simultaneously with the matriculation examinations. The time for each supplemental examination will be fixed by the Faculty; the examination will not be granted at any other time, except by special permission of the Faculty, and on payment of a fee of $5.

The examination at the end of the Summer School in any subject will, for those who attend this school, be reckoned as a supplemental examination.

4. A list of those to whom the Faculty has granted supplemental examinations in the following September will be published after the sessional examination.

DOUBLE COURSES.

ARTS AND APPLIED SCIENCE.

Students who wish to obtain the degree of B.A. and B.Sc. (Applied Science) in six years, will spend the first three years in Arts before attending any regular classes in Applied Science, except the Summer Classes referred to below. The student will then enter the Faculty of Applied Science and devote the remaining three years entirely to the work of this Faculty. The special Summer Courses mentioned are necessary in order to overtake the work in Descriptive Geometry, Drawing and Shopwork, which form part of the regular courses of the first two years in Applied Science. This work must be taken in two periods of one month each (in the month of May), at

the close of the regular work of the First and Second Years in the Faculty of Arts.

All students in the First and Second Years of the double course must, on the 31st of March, notify the Dean of the Faculty of Applied Science that they are taking this double course and will consequently enter themselves for the summer work in question at the close of the regular work of the season.

The subjects which they are required to take each year in the Faculty of Arts are as follows:—

First Year.

The curriculum as laid down for the B.A. Degree in this year, except that a modern language *must* be taken. It is recommended that Advanced Mathematics be taken instead of the ordinary course in this subject.

Second Year.

1. English Composition.
2. Latin.
3. Mathematics (Dynamics, Statics, Hydrostatics and Spherical Trigonometry).
4. French or German.
5. The modern language not selected under No. 4 (if studied in the First Year), *or* English *or* Economics and History.

Third Year.

1. English Composition.
2. Physics.
3. Any two of the following:—
   English, Latin, French, German, Philosophy, History, Economics (if taken in the Second Year), Political Science.

ARTS AND MEDICINE.

Students who wish to obtain the Degree of B.A. or B.Sc. (Arts) and M.D., in seven years will take three years in the Faculty of Arts and during the remaining four years will work altogether in the Faculty of Medicine. The courses

which these students are required to take in the Faculty of Arts are as follows:—

First Year.

The curriculum as laid down for the B.A. Degree in this year, except that a modern language *must* be taken.

Second Year.

English Composition.
Greek or Latin (the language taken in the First Year).
French or German (the language taken in the First Year).
Chemistry (Arts).
Biology (Medicine).

Third Year.

English Composition.
Anatomy.
Political Science.
English Literature.
Additional Subject (optional).
Organic Chemistry Lab.

A certificate of "Literate in Arts" will be given along with the professional Degree in Medicine or Applied Science, to those who have completed two years' study in the Faculty of Arts, and have passed the prescribed examinations.

ARTS AND LAW.

1. Undergraduates who desire to qualify for the Degrees of B.A. and B.C.L. in six years shall include French among the subjects studied in each of the first two years of their course.

2. They shall take:—

I. *In the Third Year*:—

(*a*) French.
(*b*) Political Science.
(*c*) One other of the courses of the Arts curriculum, which shall be selected from those under the heading "Science" in every case in which the Second Year Course has not included either Chemistry or Biology.

(*d*) Either one or two hours weekly in English Composition.*

II. *In the Fourth Year*:—

(*a*) Economics.
(*b*) Constitutional Law and History.†
(*c*) Roman Law.
(*d*) One hour weekly in English Composition, if only one has been taken in the Third Year.*

In the case of students who propose to study Law, but are not subject to the statutory requirement of office attendance (see page 9) during the three years of their Law course, the Faculty may, on special application, in individual cases, make such arrangements as to permit of the completion of the double course in five years.

COURSES LEADING TO FORESTRY.

See page 171.

ARTS AND THEOLOGY.

1. The Faculty will make formal reports to the governing body of the Theological College which such students may attend as to:—(*a*) their conduct and attendance on the classes of the Faculty, (*b*) their standing in the several examinations; such reports to be furnished after the examinations, if called for.

2. Students who are pursuing a double course in Arts and Divinity (six years at least) will take in the Third and Fourth Years the courses which constitute the ordinary curriculum in Arts, less a half course in each of these years, or a whole course in either.

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* NOTE.—Students are recommended to distribute their English work over two years.

† NOTE.—The half course in Constitutional History being given in alternate years only, students shall take it in their Third Year when it is offered in that Year.

COURSES OF LECTURES IN ARTS.

DEPARTMENT OF CLASSICS.

PROFESSORS:—{ W. PETERSON, M.A., LL.D.
JOHN MACNAUGHTON, M.A.

ASSOCIATE PROFESSORS:—{ A. J. EATON, M.A., PH.D.
S. B. SLACK, M.A.

LECTURER:—ALEXANDER M. THOMPSON, PH.D.

SESSIONAL LECTURER AND TUTOR (Royal Victoria College):—ELIZABETH A. HAMMOND IRWIN, M.A.

TUTOR:—R. K. NAYLOR, B.A.

Greek.

All students taking Greek are expected to provide themselves with a grammar, a Greek-English dictionary, and an Atlas of ancient geography. The following are recommended:—

Allen's Elementary Greek Grammar; Liddell and Scott's Greek Lexicon (Abridged, or Intermediate); Kiepert's Atlas Antiquus, or Putzger's Historical Atlas.

BEGINNERS' COURSE.

1. Lectures, four hours a week.

Books required for 1910-11.—White's First Greek Book (Ginn & Co.); Macmillan's First Greek Reader, by Colson.

A tutorial class conducted during May and June enables students to overtake work not completed by the close of the winter session. Students intending to take Greek in their Second Year are required to take this class, or, if exempted by the Faculty, to take a supplemental examination in September.

ORDINARY COURSES.

First Year.

2. Lectures, four hours a week.

For 1910-11:—AUTHORS: Lysias, Selections (Shuckburgh, Macmillan); Homer, Odyssey Books VI and VII (Merry, Clarendon Press); Euripides, Alcestis (Blakeney, Bell's Illustrated Classics).

COMPOSITION: North and Hillard's Greek Prose Composition (Rivingtons).

TRANSLATION AT SIGHT: Peacock and Bell, Passages for Greek Translation (Macmillan, Elementary Classics).

GREEK HISTORY: 560 to 479 B.C. Book recommended, Cox's Greeks and Persians (Longmans Epoch Series), or Bury's History of Greece (Macmillan), chs. V. to VII.

Additional work may be prescribed for advanced students.

Second Year.

3. Lectures, four hours a week.

For 1910-11:—AUTHORS: *Summer Reading.* — GREEK HISTORY: 479 to 403 B.C. Books recommended, Bury, History of Greece (Macmillan), chs. VIII to XI; Abbott, Pericles and the Golden Age of Athens (Putnam). *Lectures.*—Thucydides, Book VI, (in part) (Marchant, Macmillan); Aeschylus, Prometheus Vinctus (Prickard, Clarendon Press); Homer, Odyssey V (Merry, Clarendon Press).

COMPOSITION: North and Hillard's Greek Prose Composition (Rivingtons).

TRANSLATION AT SIGHT: Greek Unseens in Prose and Verse, Intermediate Section (Blackie & Son).

Advanced students will take the work of the ordinary course, together with additional work to be prescribed.

Third and Fourth Years.

4. Lectures, four hours a week.

For 1910-1911:—AUTHORS: *Summer Reading.*—Greek History from 404-323 B.C. *Lectures.*—Aristophanes, Acharnians (Merry, Clarendon Press); Aeschylus, Septem Contra Thebas (Sidgwick, Clarendon Press); Plato, Protagoras (Adam, Pitt Press). The lectures will include a course of twenty-four hours on Greek History or the history of Greek thought or literature.

COMPOSITION: Sidgwick's Greek Prose, Composition (Longmans).

TRANSLATION AT SIGHT: Fowler, Sportella (Longmans).

HONOUR COURSES.

Third and Fourth Years.

5. Honour students of the Third and Fourth Years will take the work of the ordinary course together with additional work, and will attend the ordinary lectures (except those from which they may be exempted under the regulation on page 100), together with four hours a week of additional lectures. They are recommended to study during the Summer Vacation the books set down under the head of Private Readings.

Additional Work for Honours (1910-11):—AUTHORS: *Private Readings* (Third and Fourth Years).—Herodotus, Book I (Sleeman, Pitt Press); Homer, Odyssey Books XVI-XVIII (Merry, XIII-XVIII, Clarendon Press); (Fourth Year only).—Sophocles, Electra (Jebb and Davies, Cambridge University Press). *Lectures.*—Thucydides, Book II (Marchant, Macmillan & Co.); Plato, Republic as in Purves, Selections from Plato (Clarendon Press); Sophocles, Ajax (Jebb and Pearson, Cambridge University Press).

COMPARATIVE PHILOLOGY: 48 lectures (see p. 121), which will be reckoned as forming part of the Third and Fourth Year Honour Course in Greek and Latin together. Book recommended, Max Niedermann, Précis de phonétique historique du latin, Paris, libr. Klincksieck.

COMPOSITION: Passages to be selected.

TRANSLATION AT SIGHT: Fox and Bromley, Models and Exercises in Unseen Translation (Clarendon Press).

(*For Honour Courses in Classics, see also page* 101.)

BRITISH SCHOOL OF CLASSICAL STUDIES IN ATHENS.

McGill University is a contributor to the support of this School, which affords facilities for archæological and classical investigation in Greece. Graduates in Arts of McGill University are accordingly entitled to special privileges and advantages as regards tuition in the School.

Latin.

ORDINARY COURSES.

All students taking Latin are expected to provide themselves with a grammar, a Latin-English dictionary, and an Atlas of Ancient Geography. The following are recommended:—Allen and Greenough's New Latin Grammar; Lewis' School Dictionary, *or* White's Junior Students' Latin-English Dictionary; Kiepert's Atlas Antiquus, *or* Putzger's Historical Atlas.

First Year.

1. Lectures, four hours a week.

For 1910-11:—AUTHORS:—Caesar and Pompey in Greece (Atherton, Ginn & Co.); Cicero, Pro Lege Manilia (Nicol, Cambridge University Press); Tibullus, Selections (Dobson, Arnold's Latin Texts).

COMPOSITION: North and Hillard, Latin Prose Composition (Rivington).

TRANSLATION AT SIGHT: Hardy's Latin Reader (Macmillan).

ROMAN HISTORY: Outlines, to 133 B.C. Book recommended, Botsford, History of Rome (Macmillan), chs. I to VI.

Advanced Section. Tacitus, Histories Book I (Davies, Cambridge University Press).

Second Year.

2. Lectures, four hours a week.

For 1910-11:—AUTHORS: *Summer Reading*:—ROMAN HISTORY: Outlines, from 133 B.C. to 337 A.D. Book recommended, Botsford, History of Rome (Macmillan), chs, VII to XII. *Lectures.*—Livy, Book XXI (Trayes, Bell's Illustrated Classics); Horace, Historical Odes (Church Blackie); Virgil, Aeneid VI (Sidgwick, Pitt Press).

COMPOSITION: North and Hillard's Latin Prose Composition (Rivingtons), and Exercises based upon Livy Book XXI.

TRANSLATION AT SIGHT: Augustan Prose (Eaton, Foster Brown).

Advanced Section. As in First Year.

Third and Fourth Years.

3. Lectures, four hours a week.

For 1910-11:—*Summer Reading.*—Mackail, History of Roman Literature (Scribners).

AUTHORS: *Lectures.*—Livy Book IX (Anderson, Pitt Press); Pliny's Letters Book VI (Duff, Pitt Press); Juvenal, Satires I, III, V, VIII, X, XIII, (Duff, Pitt Press).

A course of twelve lectures on the History of the Empire.

A course of twelve lectures on the Private Life of the Romans.

COMPOSITION: Selected Passages.

TRANSLATION AT SIGHT: Rivingtons' Class Books of Latin Unseens (ed. Smith), Book X.

HONOUR COURSES.

Third and Fourth Years.

4 Honour Students of the Third and Fourth Years will take the work of the ordinary course together with additional work, and will attend the ordinary lectures (except those from which they may be exempted under the regulation on p. 100) together with four hours a week of additional lectures. They are recommended to study during the summer vacation the books set down under the head of Private Readings.

Additional work for Honours (1910-11): AUTHORS (Third and Fourth Years):—*Private Readings.*—(Third and Fourth Years)—Tacitus, Annals Book I, (Furneaux, Clarendon Press; Tusculan Disputations, Book V, (Allyn and Bacon); (Fourth Year only):—Virgil, Aeneid II, X-XII (Sidgwick, Cambridge University Press, Cambridge Series for Schools and Training Colleges).

Lectures: Propertius (Butler, Constable, Selections); Catullus (Simpson, Macmillan); Tacitus, Annals, Books II-IV, (Furneaux, Clarendon Press).

COMPARATIVE PHILOLOGY: 48 lectures (see page 121) which will be reckoned as forming part of the Third and Fourth Year Honour Course in Latin and Greek together. Book recommended, see page —.

COMPOSITION: Nixon's Prose Extracts.

TRANSLATION AT SIGHT: Fox and Bromley, Models and Exercises in Unseen Translation (Clarendon Press).

(*For Honour Courses in Classics, see also page* 101.)

BRITISH SCHOOL OF CLASSICAL STUDIES AT ROME.

McGill University is a contributor to the support of this School, which affords facilities for archaeological and classical investigation at Rome. Graduates in Arts of McGill University are accordingly entitled to special advantages as regards tuition in the School.

Sanskrit.

The two courses in Sanskrit are primarily intended for students who have passed the Second Year sessional examination, but permission may in certain other cases be obtained to attend the elementary course.

1. A. For beginners, the work mainly consisting in the mastering of the elements of Sanskrit Grammar with such composition as tends to fix in the mind the knowledge thus acquired. Etymological references will be frequently made and comparisons suggested in order at once to familiarize the language and give it an educational value in spite of the elementary nature of the course. This course counts as a half-course qualifying for the Degree, and it is especially recommended to students attending the half-course in Comparative Philology.

Two hours a week.

1. B. For those students who have already passed through Course A or its equivalent in Sanskrit preparation. One hour per week is devoted to lectures on Indian Literature, commencing with the Post Vedic Period; two hours are devoted to reading selections; and one hour to grammar and

composition, bearing especially on the texts read. Course B counts as one full course to the Final; courses A and B together, one and one-half, the student taking up Course B not being debarred thereby from repeating a course in another Department.

Four hours a week.

Books required:—Perry, Sanskrit Primer; Whitney's Sanskrit Grammar; Lanman's Sanskrit Reader (Ginn & Co.). For reference: Sanskrit Literature, A. A. Macdonell (Heinemann).

Summer Readings.—A course of summer readings will be suggested according to individual needs. During the months of May and June the lecturer will be glad to give his personal supervision to students of Sanskrit and is prepared to give lectures if due notice is given.

Comparative Philology.

LECTURER:—S. B. SLACK, M.A.

A. The first part of the course on Comparative Philology will deal with the following subjects; the history of the Science of Comparative Philology; the Indo-Germanic languages and their classification and relation to one another; the primitive home and culture of the so-called Aryan people; the nature of compounds in Indo-Germanic; recent theories about Ablaut and its relation to the Indo-Germanic system of accentuation; the importance of Ablaut in explaining apparent irregularities of declension and conjugation; external Sandhi in the Indo-Germanic languages; and the influence of analogy and contamination in the formation of words. The lectures will then go on to discuss the various sounds of the primitive Indo-Germanic language, and the development of those sounds in the various languages of the Indo-Germanic family.

B. After Christmas, special attention will be devoted to the Comparative Grammar of Greek and Latin. This part of the course will be especially useful to Classical Honour

students. At the same time students who desire to make a special study of Comparative Philology are recommended to take this course in addition to course A mentioned above.

Two hours a week.

DEPARTMENT OF ENGLISH.

PROFESSOR:—CHAS. E. MOYSE, B.A., LL.D.
PROFESSOR OF COMPARATIVE LITERATURE AND ASSOCIATE PROFESSOR OF ENGLISH:—P. T. LAFLEUR, M.A.
TUTOR AND LECTURER:—SUSAN E. CAMERON, M.A., *Vice-Warden of the Royal Victoria College.*
LECTURERS:—G. W. LATHAM, B.A.; CYRUS MACMILLAN, PH.D.

ORDINARY COURSES.

First Year.

1. A. ENGLISH COMPOSITION.—The course will be of a practical character. Regular essays are required of all students. One hour a week.

1. B. ENGLISH LITERATURE.—The course will consist of a study of representative English writers. One hour a week.

1. C. HISTORY.—For course, see under History, page 148.

For affiliated colleges, in place of the above:—Halleck's History of English Literature (American Book Co.), pp. 1-261, with the following readings:—Chaucer, Prologue to the Canterbury Tales; Spenser, Faerie Queene, Book I; Milton, Comus; European History (Adams, Macmillan), pp. 53-451. Regular practice and instruction in composition are strongly recommended.

Second Year.

2. A. LITERATURE.—English Prose from Bacon to Burke. Three hours a week before Christmas, with the following special readings:—Bacon: Essays of Truth, of Unity in Religion, of Revenge, of Atheism, of Travel, of Friendship, of Plantations, of Building, of Studies; Browne: Religio Medici; Milton: Areopagitica; Defoe: A Journal of the Plague Year; Swift: A Tale of a Tub; Steele and Addison: The Tatler and the Spectator, *passim;* Goldsmith: The

Citizen of the World. Craik's Prose Specimen and Chambers's Cyclopedia of English Literature (new ed.) may also be used.

English Prose in the Nineteenth Century. Three hours a week after Christmas. The course is a continuation of that followed in the first term and will include representative prose writers from Jeffrey to Leslie Stephen. Readings—Lamb: Essays of Elia; DeQuincey: The English Mail-Coach, Levana and the Three Ladies of Sorrow, A Spanish Military Nun; Carlyle: Essay on Burns, Heroes and Hero-Worship, other selections, to be specified; Ruskin: Sesame and Lilies; Arnold: Essays in Criticism, Second Series.

2. B. COMPOSITION.—Continuation of 1 A.

Fortnightly essays will be required and will be taken into account in determining the standing of students at the end of the session. One hour per week.

This course is obligatory on all Second Year students.

For affiliated colleges:—Halleck's History of English Literature, pp. 305-480, and Nineteenth Century Literature (Cunliffe and Cameron, Copp, Clark Co.). Continued work in composition is strongly recommended.

Third Year.

3. A. ENGLISH LITERATURE.—Shakspere.—This course will begin with a review of the early history of the English drama, and of the conditions which led to its development in the time of Elizabeth. The advances made by the earlier Elizabethan dramatists will be noted, and Shakspere's methods illustrated by a comparative study of A Midsummer Night's Dream, Romeo and Juliet, Henry V, As You Like It, Hamlet, King Lear, Macbeth, and The Tempest; the relation of these plays to their sources will also be considered. Students are recommended to read as many of Shakspere's plays as they can, and to give special attention to those mentioned above. Books of reference will be named from time to time. Two hours a week. Dr. Moyse.

In connection with 3A a special course of lectures will be delivered by Dr. Macmillan on Shakspere's plays. This course is compulsory on all students who take 3A. One hour a week.

(3A together with this course, is reckoned as a half-course.)

[The editions of separate plays published by Dent (Temple Shakespeare) or Macmillan will be found convenient.]

3. B. A course on Poetry and the Drama. England from 1660 to 1789, with special and detailed reference to changes in literary ideals and expression during the period discussed. The lectures will include poets, from Dryden to Crabbe; dramatists, from the writers of Heroic plays to Sheridan. Students will be called upon to pay special attention to the following works: Dryden, Absalom and Achitophel: Pope, Selections from the Essay on Man and The Rape of the Lock; Thomson, The Seasons (one book); Cowper, The Task (one book); Crabbe, The Borough (four divisions); Dryden, Essay on Dramatic Poesy; Addison, Cato; Goldsmith, She Stoops to Conquer; Sheridan, The School for Scandal. Two hours a week. Prof. Lafleur.

3. C. English Composition. — An advanced course on English Composition, including style, methods and principles of literary criticism, treated from the historical point of view, and an introduction to the comparative study of literature in accordance with the most recent results of contemporary thought and research. In connection with this course students will be examined in a course of prescribed readings. Essays at stated periods are required of all. One hour a week. Prof. Lafleur and Dr. Macmillan.

Prof. Lafleur's course in Composition is open only to students who take his course in Literature.

Books of reference and authorities:—Saintsbury's History of Criticism; Lessing, Sainte-Beuve, Brunetière, Arnold, Ruskin, Worsfold.

Fourth Year.

4. A. ENGLISH LITERATURE. — A Course on the Leading Poets of the Nineteenth Century. The chief aspects of the French Revolution will be considered, and Republican feeling in England illustrated chiefly from the works of Wordsworth, Coleridge and Southey. The indirect revolutionary poets Byron and Shelley will then be considered, and their typical poems, together with those of the poets already mentioned, critically examined. The remainder of the course will be given to Scott, Keats [Macmillan], Tennyson [Macmillan], Browning, Matthew Arnold and Swinburne. Two hours a week.

The poems which have been selected for private reading will be announced at the commencement of the session. Dr. Moyse, Prof. Lafleur and Miss Cameron.

4. B. A general course on the history of English Prose Fiction from Richardson to the middle of the nineteenth century, treating of the various forms successively given to English novels during the period, and the influences that stimulated or otherwise affected such productions. While students are expected to show particular knowledge of English master-pieces in this kind, frequent reference to cognate works by continental writers will also demand some familiarity with contemporary European literature. Portions of the following works will be selected for detailed study and discussion: Richardson, Clarissa; Fielding, Amelia; Goldsmith, The Vicar of Wakefield; Godwin, Caleb Williams; Walpole, The Castle of Otranto; Thackeray, Henry Esmond. *Books of reference*:—Raleigh, The English Novel; Dunlop, History of Fiction; Cross, The Development of the English Novel. Two hours a week. Prof. Lafleur.

4. C. ENGLISH COMPOSITION.—The statement respecting 3 C (page 124) indicates the method and character of this course, which is regarded as a continuation of the course in the Third Year. One hour a week.

Honour Courses.

Third Year.

In addition to the ordinary work of the Third Year, Honour students will take course 5, together with courses 9, 10, 11, and 13.

5. English Language. Three hours a week. Sweet, Anglo-Saxon Reader, Extracts (all the Prose) XX, XXI, XXIII, XXVII; Wright, Primer of the Gothic Language, The Gospel of St. Mark (Clarendon Press); Wright, Old English Grammar (Oxford University Press). (The use of Braune, Gotische Grammatik is recommended). Dr. Moyse.

Fourth Year.

Honour students in the Fourth Year will select Language or Literature.

Language students will take the following special courses in addition to 4A, 4B, and 4C:—

6. Anglo-Saxon.—The whole of Béowulf will be read in class and illustrated by notes on origins, philology and textual emendations. *Text-Book*: Harrison and Sharp's Béowulf (Ginn). Students will read selected portions of other poems for examination. Anglo-Saxon prose will be studied mainly in the translation of Gregory's Pastoral Care and Ælfric's Homilies. Students will be guided in the examination of dialectical texts and referred to important articles in periodical literature dealing with that subject and also with the field of Anglo-Saxon generally.

Two hours per week. Dr. Moyse.

7. Middle English. — The course is intended to give a knowledge of dialectical English and to illustrate the changes the language has undergone. The texts given in Morris's Specimens of Early English, Part I, and Morris and Skeat's Specimens of Early English, Part II, may be regarded as the chief material for study. A list of books of reference and of important monographs will be given at the commencement of the course. Two hours a week. Dr. Moyse.

8. Mœso-Gothic.—The course on Mœso-Gothic is intended to open the way to the comparative study of allied Teutonic languages. Particular attention will be given to the phonological relations of Mœso-Gothic and Anglo-Saxon. *Text-Books*: Wright, Primer of the Gothic language, The Gospel of St. Mark; Ulfilas (Heyne). Dr. Moyse.

Honour Students selecting Literature will take the following, in addition to the ordinary work of the Fourth Year, and one hour a week in Language (Anglo-Saxon:—Sweet, Anglo-Saxon Reader, Extracts (all the verse):—

9. Chaucer. — A sketch of Chaucer's characteristics and literary influence. The following works are chosen for special study:—Canterbury Tales: Prologue, Knights Tale, Nonne Prestes Tale; Parlement of Foules; Hous of Fame [Skeat's Chaucer]; Piers the Plowman (Clarendon Press). Works to be consulted or read: Pollard's Chaucer Primer (Macmillan); Lounsbury, Studies in Chaucer; Jusserand's English Wayfaring Life; Snell, The Fourteenth Century. One hour a week. Mr. Latham.

10. Prose Writers before Dryden.—The main object of the course will be to discuss the chief literary influences visible in the Pre-Restoration writers of English prose and to examine characteristics of style. The subject will be treated chronologically. As the course is largely interpretative and critical, facts of biography will be used only when they illustrate points of moment.

Students will read the following works for examination: More, Utopia (Arber's reprint, or Temple Edition); Sidney, Apologie for Poetry (Ed. Cook, Ginn & Co. or Shuckburgh, Cambridge University Press); Lodge, Rosalynd (Newnes, Caxton Series); Bacon, New Atlantis; Earle, Microcosmographie (Temple Ed.); Milton, Areopagitica (Ed. Hales, Clarendon Press).

Two hours a week. Miss Cameron.

11. Spenser and Milton. — This course is intended to show the literary relations of Spenser and Milton to their time, and to treat with special prominence the follow-

ing works:—Spenser: The Shepheard's Calendar, Mother Hubbard's Tale, Colin Clout's Come Home Again, Faerie Queene (Selections), Fowre Hymnes. Milton: Shorter Poems, Paradise Lost (Selections), Samson Agonistes.

One hour a week. Miss Cameron.

12. COMPARATIVE LITERATURE (1911-12).—A course of lectures on the influence of English literature upon the Continent of Europe, chiefly during the eighteenth and nineteenth centuries. The treatment discusses mainly the historical development of ideas, but examines also corresponding modifications regarding literary method and form.

Voltaire, Letters concerning the English Nation; Elton, The Augustan Age; Texte, Jean Jacques Rousseau and the Cosmopolitan Spirit in Literature (tr. Matthews); Brunetière, L'Evolution des Genres. Two hours a week. Prof. Lafleur.

13. COMPARATIVE METHODS IN LITERARY STUDY:—A course of lectures setting forth the chief tendencies manifested in contemporary criticism, and here applied to the examination of important literary relations between the Continent of Europe and England through the works of Montaigne, Molière, Voltaire, LeSage, etc.; with ample reference to the literature of Germany, Spain, and Italy, in corresponding manner. Two hours a week. Prof. Lafleur.

14. ENGLISH PROSE FROM DRYDEN TO BURKE (1911-12).—Details and readings to be announced at the beginning of the session. Prof. Lafleur.

15. AMERICAN AND CANADIAN LITERATURE (1911-12).—A historical and critical outline of English Literature in the New World. Two hours a week. Miss Cameron.

16. TENNYSON (Continuation) and MINOR POETS of the NINETEENTH CENTURY. One hour a week.

For examination: Maud and the Idylls of the King. Readings from minor poets will be announced at the begining of the session. Dr. Moyse.

Any of the above Honour Courses may be taken as an ordinary course with the approval of the Faculty, provided that the time-table allows of such substitution.

For Honour Courses in English, see also pages 101 *and* 102.

DEPARTMENT OF MODERN LANGUAGES.

PROFESSOR:—HERMANN WALTER, M.A., PH.D.
ASSOCIATE PROFESSOR:—LEIGH R. GREGOR, B.A., PH.D.
ASSISTANT PROFESSOR:—J. L. MORIN, M.A.
LECTURER:—E. T. LAMBERT, B.A.
LECTURER IN FRENCH (ROYAL VICTORIA COLLEGE):—MLLE G. BIANQUIS, AGRÉGÉ DE L'UNIVERSITÉ DE FRANCE.
TUTOR IN GERMAN (ROYAL VICTORIA COLLEGE):—MAY IDLER, B.A.

A.—French.

Owing to the position which this University occupies in the midst of a very large French-speaking population, there is a permanent demand for courses of a practical, conversational character; for the same reason the Department profits by the co-operation of French church services, French family life, French newspapers, French theatres, French literary clubs, and public lecture courses in the French language.

In drawing up the following courses endeavours have been made not only to provide for the maintenance of academic methods, but also to meet the special needs of the professional men of the Province of Quebec, every student being given the opportunity to learn to speak French. In the First and Second Years the French language is largely used in class instruction. In the Third and Fourth Years all lectures are given and all studies carried on in French.

Honours may be taken in French and German together or in Latin and French or in Latin and German, as well as in English and French or in English and German. See pages 101 and 102.

ORDINARY COURSES.

First Year.

1. *First Term*:—Vreeland & Koren, French Syntax and Composition (Holt), first ten lessons with exercises I and II for each lesson; Mademoiselle de la Seiglière, Sandeau (Holt).

Second Term:—Chateaubriand, Les Aventures du dernier Abencérage (Holt); Grammar, Lessons—with exercises I and II for each lesson.

2. *First Term*:—Daudet, Tartarin (A. B. Co.); Milhau, Choix de Poésies (Renouf), pieces beginning on pp. 19, 42, 65, 69.

Second Term:—Dumas, Napoléon, including the passages for translation into French (Macmillan). Milhau, pieces beginning on pp. 5 and 22; Super, Histoire de France (Holt), Chaps. V and VI to bottom of page 50, pp. 55-60 and Chaps. XVI and XVII, to bottom of page 167.

Advanced Section (in place of course 2): Lemaître, Contes extraits de Myrrha (Heath); Musset, Selections (Ginn); Pailleron, Le Monde où l'on s'ennuie (Jenkins); Normand, Cours d'Histoire à l'usage des écoles Normales et Primaires, deuxième année (Colin); Milhau, Choix de Poésies (Renouf).

Four hours weekly, two for each course.

Second Year.

SUMMER READINGS for students entering on their Second Year:—Corneille, Cinna (Holt); Daudet, Le Petit Chose (Heath).

The examination on Summer Readings will be held in the first week of the session.

SESSIONAL LECTURES:—

3. *First Term*:—Vreeland and Koren, French Syntax and Composition (Holt), Idioms of the first ten lessons with the third exercise for each lesson, Part II; Le Cid (Holt); Elementary Historical French Grammar, all phonetical part.

Second Term:—Grammar, remainder of Part I, and Part III; Bazin, Les Oberlé (Holt); Elementary Historical French Grammar, the morphological part.

Advanced Section (in place of Course 3), First Term: Montesquieu, Lettres Persanes, with exercises (Macmillan) Hugo, Hernani (Holt); Second Term: Corneille, Le Cid (Holt); Renan, Souvenirs (Heath); Elementary Historical French Grammar.

4. *First Term*:—Hugo, Quatre-vingt-treize (Heath), pp. 1-153. Milhau, Choix de Poésies (Renouf), pieces beginning on pp. 22, 33.

Second Term:—Finish Quatre-vingt-treize; Molière, Les Femmes Savantes (Heath); Mansion, Esquisse de la Littérature Française (McDougall & Co., London), Sections 73-76, 80-83, 97-103, 111-130, 135-141, 143-177, 180-183, 197-201, 225-229.

Four hours weekly, two for each course.

Third and Fourth Years.

The courses will consist mainly in the study of French Literature and Advanced Prose Composition.

SUMMER READINGS for students entering on the Third or Fourth Year:—Racine, Phèdre (Heath); Hugo, Quatre-vingt-treize (Ginn).

The examination on Summer Readings will be held in the first week of the session.

SESSIONAL LECTURES:—

5. For 1910-11:—Literature up to the end of the XVIIth Century. Doumic, Histoire de la Littérature Française; Corneille, Polyeucte; Racine, Les Plaideurs, Andromaque; Molière, Tartuffe; Boileau, Choix d'Epîtres et de Satires; La Bruyère, Selections; Madame de la Fayette, La Princesse de Clève.

In the Second Term a course will be given on Zola, France, Brunetière, Bourget and Rostand.

Prose Composition:—Spiers, Graduated Course of Translation into French Prose (Simpkin, Marshall and Co., London).

6. For 1911-12:—Literature in the XVIIIth and XIXth Centuries. Lesage, Gil Blas (Heath and Co.); Marivaux, Le Jeu de l'Amour et du Hasard; Buffon, Discours sur le Style; Montesquieu, Grandeur et Décadence des Romains; Sedaine, Le Philosophe sans le savoir; J. J. Rousseau, Selections; Voltaire, Zaïre; Doumic, Histoire de la Littérature Française.

Victor Hugo, Ruy Blas; Musset, Selections (Ginn and Co.); Balzac, Eugénie Grandet; Rostand, Princesse Lointaine; Hugo, Légende des Siècles; Gautier, Poésies (Selections).

Prose Composition:—Spiers, Graduated Course of Translation into French Prose (Simpkin, Marshall and Co., London).

N.B.—In order to be admitted to the Third Year French a student must understand French well enough to take lectures delivered in French.

Four hours weekly.

Honour Courses.

Third and Fourth Years.

In order to obtain Honours, candidates must be able to speak French fluently.

7. History of Literature:—History of the French Drama. One hour weekly.

8. Mediæval French Literature and Philology (1911-1912):—Darmesteter's Cours de Grammaire Historique, and Bartsch, Chrestomathie de l'Ancien Français. Three hours weekly.

9. Composition. One hour weekly.

10. Les Moralistes Français. One hour weekly.

N.B.—Before entering on their Fourth Year Course, Honour Students are expected to have read the following:—Corneille, Le Cid, Horace, Cinna, Polyeucte; Racine,—Andromaque, Britannicus, Phèdre, Athalie; Molière,—Ecole des Femmes, Misanthrope, Tartuffe, Le Bourgeois Gentil-

homme, Les Femmes Savantes; Boileau,—L'Art Poétique; except when any of these texts are part of the readings prescribed for the ordinary course in the Fourth Year.

(*For Honour Courses in Modern Languages, see also pages* 101 *and* 102.

B.—German.

Ordinary Courses.

Beginners' Course.

1. Van der Smissen und Fraser, High School German Grammar (Copp Clark Co.); Meissner, Aus deutschen Landen (Holt); Schiller, Maria Stuart (Holt and Co.).

A tutorial class conducted during May and June enables students to overtake work not completed by the close of the winter session. Students intending to take German in their Second Year are required to take this class, or if exempted by the Faculty, to take a supplemental examination in September.

Four hours weekly.

Summer Reading (obligatory) for students of the Beginners' Class intending to take German in their Second Year:—Schiller, Die Piccolomini (Holt); Riehl, Die vierzehn Nothelfer (A. B. Co.).

First Year.

2. *First Term*:—The Joynes-Meissner German Grammar (Heath); Moscher, Willkommen in Deutschland (Heath); *Second Term*: Horning, German Composition; Freytag, Die Journalisten (Ginn); Schiller, Maria Stuart (Holt and Co.); German and French Poems (Holt and Co.).

Four hours weekly.

Second Year.

Summer Readings for students entering on their Second Year:—Schiller, Die Piccolomini (Holt); Riehl, Die vierzehn Nothelfer (A. B. Co.).

The examination on Summer Readings will be held in the first week of the session.

3. SESSIONAL LECTURES.—The Joynes-Meissner German Grammar; Horning, German Composition; Schiller, Jungfrau von Orleans (Holt); Lessing, Minna von Barnhelm, ed, Primer (Heath & Co.); Goethe, Egmont (Ginn); Keller, Bilder aus der Deutschen Literatur (American Book Co.), edition 1905.

Four hours weekly.

For students in the Advanced Course an additional hour will be provided for the purpose of further study.

Third and Fourth Years.

SUMMER READINGS for students entering on their Third or Fourth Year:—Grillparzer, Der Traum ein Leben (Heath); Stifter, Das Heidedorf (Am. Book Co.).

The examination on Summer Readings will be held in the first week of the Session.

4. (For 1910-11):—Lessing, Emilia Galotti and Dramaturgie; Kleist, Prinz Friedrich von Homburg (Ginn); J. B. Richter, Selections (A. B. Co.); Grillparzer, Sappho (Ginn); Sudermann, Der Katzensteg (Heath). History of German Literature, in the Classical Period (Kluge). Prose Composition.

Four hours weekly.

5. (For 1911-12:—Lessing, Nathan (Am. Book Co.); Goethe, Iphigénie (Pitt Press); Schiller, Wallenstein's Tod; Keller, Legenden (Holt and Co.).

PROSE COMPOSITION.—History of German Literature in the XIXth century.

Four hours weekly.

HONOUR COURSES.

Third and Fourth Years.

The German Language alone is used in class instruction, and in order to obtain Honours, candidates must be able to speak German fluently.

Mediæval Literature and Philology are taken up in alternate years.

6. 1910-11. History of German Literature:—

(*a*) The Romantic School.

(*b*) Schiller's Dramas, (Geminar).

Each course one hour weekly.

7. Mediæval Literature and Philology.

For 1910-11:—A general outline of the development of the German Language and a special study of the Middle High German period, its language and literature.

The following books will be used:—Bachmann, Mittelhochdeutsches Lesebuch (Faesi and Beer, Zurich); F. Kaufmann, Deutsche Grammatik; Behaghel, Die Deutsche Sprache.

Three hours weekly.

8. Composition: — Perini, Extracts in English Prose (Hachette).

N.B.—Before entering on their Fourth Year course, Honour students are expected to have read the following:—Lessing, — Minna von Barnhelm or Nathan der Weise, Emilia Galotti; Schiller, — Wilhelm Tell, Maria Stuart, Jungfrau von Orleans, Wallenstein, Ballads; Gœthe,— Gœtz von Berlichingen, Egmont, Hermann und Dorothea, Faust I, Poems; except when any of these texts are part of the readings prescribed for the ordinary course in the Fourth Year.

(*For Honour Courses in Modern Languages, see also pages* 101 *and* 102.)

Italian.

Lecturer:—Leigh R. Gregor, Ph.D.

Third or Fourth Year.

The following course, which may be given in 1910-11, is intended for beginners. Partial students who wish to join the class must give satisfactory evidence of their ability to keep up with the undergraduates.

Grandgent, Italian Grammar (Heath & Co.); Grandgent, Italian Composition (Heath & Co.); De Amicis, Selections

from Il Cuore; Manzoni, Selections from I Promessi Sposi; selections fron the Divina Commedia; Notes on some of the great names o' Italian Literature.

Spanish.

LECTURER:—J. L. MORIN, M.A.

First Year.

Hill and Ford, Spanish Grammar (Heath); Matzke, Spanish Readings (Heath); Valera, El Pajero verde (Ginn); Moratin, El si de las ninas (Ginn); Galdos, Dõna Perfecta (Ginn).

Four hours weekly.

DEPARTMENT OF ORIENTAL (SEMITIC) LANGUAGES AND LITERATURE.

LECTURER:—REV. C. A. BRODIE BROCKWELL, B.A., (Oxon.), M.A. (Kings, N.S.).
SESSIONAL LECTURER IN RABBINIC:—REV. NATHAN GORDON, M.A., B.L. AND B.H. (HEBREW UNION COLLEGE).
SESSIONAL LICTURER IN HEBREW:—REV. A. R. GORDON, D. LIT.
SESSIONAL LECTURER IN HELLENISTIC JEWISH LITERATURE:—REV. G. ABBOTT-SMITH, M.A., D.D.

The courses in this Department are intended to provide undergraduates in the Faculty of Arts with an exact knowledge of a limited portion of Semitic literature and history, combined witha general perspective of the whole Semitic field, including some of the leading contributions of Eastern civilization to Western thought and culture; and also to enable those who have attained sufficient knowledge in the same to pursue in the graduate school in much fuller detail many of the more important and attractive problems connected with Semitic philology, ethics, history and civilization. While the Honour Courses have been constructed with due regard to the respective claims of philology, ethics, history and archæology for the purpose of providing a comprehensive, useful and attractive form of menta training, they have also been carefully adapted to meet the needs of various students, *e.g.* those who are especially interested in the Eastern sources of our own civiliza-

tion; those who require a knowledge of Arabic, either as candidates for the Indian or Egyptian civil service or because they intend to engage in Eastern trade and commerce; as well as of theological students of all persuasions, whether destined to labour ultimately at home or in the Oriental field.

Since the real value of a training in the Semitic Department lies in the Honour work of the Third and Fourth years, students are recommended to bear this in mind while taking the Hebrew of the Second Year, which is primarily intended to serve as a preparation for more advanced studies.

For Honours, the student has a choice of one of four courses to which he is required to devote the whole of his time, *i.e.* either I. the combined Greek and Hebrew Course; or II, the Hebrew; or III, the Arabic; or IV, the Aramaic and Syriac. In No. II the Hebrew language, in No. III the Arabic language and in No. IV the Aramaic language (including Syriac) forms the main linguistic study. Each of these three full Honour Courses includes at least three subjects (1) an exact study of the principal lanugage by which the course in question is designated; (2) a less detailed study of one additional language and (3) a general knowledge of the history and literature connected with the principal language. In addition to these three subjects a "fourth' or "additional subject" is strongly recommended for all those who seek first class Honours.

In each of the Honour Courses, II, III and IV, an elementary knowledge of Semitic comparative philoogy is also required.

Though the ordinary Hebrew course of the Second year is intended primarily as a preparation for Honour work, ordinary courses are also provided for the Third and the Fourth years, and students who have taken the Hebrew of the Second and the Third years can either continue the same language in the Fourth year or substitute either Arabic, or Aramaic and Syriac, subject to the possibility of arranging the time tables satisfactorily. Pointing in the different systems, sight translation and the writing of proses, grammar papers and essays form a marked feature of all the courses.

ORDINARY COURSES.

A. HEBREW TEXTS:—(1) Genesis I-XI; I Kings XVII-XXI; Psalms I-X.

(2) Genesis XLIX; Exodus XIV-XV; Deuteronomy V-X, XXXII, XXXIII; Judges IV and V; Jeremiah XXXI; and Proverbs I-IX.

(3) Selections from the Prophets.

(4) Ezra IV, 8; VI, 18 and VII, 12-26; Esther; The Mishma Tract; Pirke Abôth; and Selections from Rashi's Commentary on Genesis.

B. SEMITIC HISTORY (brief outlines of) with reference to recently discovered documents.

C. TEXTUAL AND LITERARY CRITICISM with special reference to the Biblical texts prescribed in A (1) (2) and (3).

D. ARABIC:—The Arabic V.S. of Genesis I-XI; the Kur'an, Suras I, LXI, LXXI, and CXIV; and Socin's Arabic Grammar, pp. 35 to 47.

E. ARAMAIC AND SYRIAC:—The Aramaic portions of Erza and Daniel; The Sermon on Mount (Mt. 5-7) in the Peshitta and Caretonian V.S.S.; The Aramaic Sources and Sentences of the New Testament; and the Hymn of the Soul.

F. THE LITERATURE OF THE JEWISH HELLENISTS, with special reference to the Alexandrian Version. Text:—Selections from the Prophets.

LECTURES.

SECOND YEAR:—A (1) and B.

THIRD YEAR:—A (2) and C. or A (3) and F.

FOURTH YEAR:—A (3) (continued) or A (4) with either C or D or E or F.

HONOUR COURSES.

I. Hebrew and Greek.

[For Greek, see page 117.]

The Hebrew subjects prescribed are the same as those in 1 and 2 of the full Hebrew Honour Course (No. II, be-

low), with the addition of the following texts:—Jonah, Job XIX, Isaiah XLII, 1-4, XLIX, 1-6, L, 4-9, LII, 13, LIII, 12.

II. Hebrew.

1. Hebrew Texts:—(*a*) Poetry:—Genesis XLIX; Exodus XV; Numbers XXI, XXIII, XXIV, Deuteronomy XXXII; Isaiah V, 1-7, XXXVIII, 9-21; Psalms I-X; Proverbs XXXI; Job XXXVIII-XLI.

(*b*) Prose:—Genesis I-XX; Exodus XIV, XX-XXI, XXXIV, 14-28; Deuteronomy V-VI, XVI; Judges IV; I King's XVII-XXI; Jeremiah X, 11, and XXXI; Ezekiel VIII; Obadiah; Ezra IV, 8 to VI, 18, and VII, 12-26; Esther, and Rashi's Commentary on Deuteronomy XXXII.

2. History:—The Prophets of Israel during the Assyrian Period.

3. Additional Language:—One only of the following:—

(1) *Arabic*:—The Arabic v. s. of Genesis I-XI; The Kuran, Suras I, LIII, LVII, LXI, LXXI, and CXIV; Muallakât, poem III; and pages 35 to 47 of Socin's Arabic Grammar and part of No. 30 in the Letters of Abu'Lala.

(2) *Aramaic*:—The ordinary course E with the addition of Merx, pages 11 to 57 and 132 to 139; Psalm 1 to 20 in the Peshitto, and the Selections in Brockelmann's Syriac Grammar.

(3) *Phœnician*, including Punic and Neo-Punic:—All the inscriptions in this language given in G. A. Cooke's North Semitic Inscriptions.

(4) *Ethiopic*:—Prætorius, pp. 31-45 and Du Chaine, pp. 228-244.

4. Special (optional) Subject:—One only of the following:—

(1) *Semitic Archæology*, including the history of the Hebrew alphabet from the earliest times up to 1100 A.D., a knowledge of the writing materials used, and all the inscriptions in Hebrew, Phœnician, Punic, Neo-Punic, Moabitish,

Egyptian, Aramaic, Nabatæan and Palmyrene in G. A. Cooke's North Semitic Inscriptions, as well as Babelon's Manual of Oriental Antiquities.

(2) *The history of the composition of the Mishna and Talmud.*

(3) *Hebrew Poetry and Oratory.*

(4) *The principles and scope of the Higher Criticism and of Biblical Criticism in General.*

(5) *History of Jewish Literature from A.D. 70 to 1500.*

(6) *Hellenistic Jewish Literature.*

(7) *The primitive social, legal and religious customs and institutions of the Northern Semites as well as the most obtrusive myths and folklore embodied in the Scriptures.*

(8) *Comparative Philology of the Semitic Languages with special reference to Hebrew.*

III. Arabic.

1. Arabic Texts: Kur'an Suras 1, 50-57, 61, 64, 71, 80-113; Muallakât, poems I, III, V; the letters of Abu-'Lala, Nos. 2, 30; and the three following in the Semitic Study Series, *i.e.*, Sahih'Al-Buhari, pp. 1-10; Annals of Tabari, pp. 1-10, and Prolegomena of Ibn Khaldûn, pp. 1-10.
2. History:—General history of the Caliphate, with special reference to the Caliphs Abû Bakr, Omar, Othmân, Aly, Mansûr and Mustaasim.
3. Additional Language:—One only of the following:—
   (1) *Hebrew* as in the Ordinary Course A (1) and (2). (3) and (4).
   (2) *Aramaic* as in the Ordinary Course E.
   (3) *Phœnician* as in Hebrew Honour Course II.
   (4) *Ethiopic* as in Hebrew Honour Course II.
4. Special (optional Subject:—One only of the following:—
   (1) *Semitic Archæology*:—Including the history of the South Semitic and classical Arabic alphabets in Isaac Taylor's "The Alphabet," Vol. I, Chaps. V and

VI, Hommel's Südarabisches Chrestomathie, Lidzbarski's Altnordarabisches I and II, and Südarabische Iuschriften, both in Ephemeris fur Semitische Epigraphik; and Babelon's Manual of Oriental Antiquities.

(2) *Arabian contributions to Western civilization and culture.*

(3) *Arabic Poetry.*

(4) *The Structure, contents and Ethics of the Kur'an.*

(5) *History of Arabic Literature in Huart's Arabic Literature and De Boer's Philosophy in Islam.*

(6) *The primitive myths, folklore, and social, legal and religious institutions, especially of the Southern Semites.*

(7) *Comparative Philology of the Semitic Languages with special reference to Arabic.*

IV. Aramaic.

1. Aramaic and Syriac Texts:—As in Ordinary Course E, and II Hebrew Honour Course 3, (2), with addition of Berachoth in Lederer's selections from the Babylonian Talmud; and selections from The Peshitto, The Evangelion Da Mepharreshe, The Acts of Thomas, and of Sharbêl, Aphraates, Bardesanes, Julian the Apostate, Philoxenus, Petrus der Iberer, Kalilag and Damnag, Cause de la fondation des Ecoles, and Carmina Nisibena.

2. History:—The place of the Aramæans in history.

3. Additional Language:—One only of the following:—

(1) *Arabic*:—As in Ordinary Course D, with the addition of Suras 53, 57, and 71.

(2) *Hebrew*:—As in Ordinary Course A (2), (3) and (4).

(3) *Phœnician*:—As in II Hebrew Honour Course.

(4) *Ethiopic*:—As in II Hebrew Honour Course.

4. SPECIAL (OPTIONAL) SUBJECT:—One only of the following:—

(1) *Semitic Archæology*:—Including the history of the Aramæan alphabets; all the most important Aramaic Inscription dockets and papyri Assyrian, Syrian, Arabian, Nabatæan, Palmyrene, Sinatic, old Egyptian and Assuan, and Babelon's Manual of Oriental Antiquities.

(2) *The history and significance of Syriac literature.*

(3) *The principles of Syriac poetry and oratory.*

(4) *The Structure, contents and ethics of the Talmud.*

(5) *The history of the genesis and development of the Neo-Hebrew language and literature.*

(6) *The literary influence of Aramaic upon Jewish and Early Christian Literature.*

(7) *Comparative Philology of the Semitic Languages with special reference to Aramaic.*

N.B.—*For Honour Courses in Semitic Languages, see also page* 103.

For Exhibitions and Prizes, see pages 56 and 60.

For the Neil Stewart Hebrew Prize, see page 60.

For Semitic Studies leading to the M.A. and Ph.D. degrees, see under "Graduate School."

DEPARTMENT OF PHILOSOPHY.

PROFESSOR:—W. CALDWELL, M.A., D.Sc.
ASSOCIATE PROFESSOR OF LOGIC AND METAPHYSICS:—
J. W. A. HICKSON, M.A., PH.D.
SESSIONAL LECTURER IN EXPERIMENTAL PSYCHOLOGY:—
WILLIAM D. TAIT, PH.D.

The courses in this Department are designed to meet the wants of students in the Faculty of Arts, of students in the profession schools, of partial students and of graduates.

In all the ordinary courses such topics as the subject of Scientific Method, the relation of Ethics to legal and social

questions, the relations of Psychology and Philosophy to Education, etc., are definitely kept in view.

Attention is drawn to the fact that it is now possible for students (graduate and others) to specialise in Psychology as well as in Mental and in Moral Philosophy.

ORDINARY COURSES.

Second Year.

1A. Elementary Psychology.—An introduction to the science. Lectures, demonstrations, reports and thesis. Four hours per week throughout the first term of session. Text book:—Angell, Psychology. (Last Edition).

1B. Logic.—In the second term a course in the Elements of Logic and the Fallacies. The course will embrace an analysis of the elements of rational thought and the principles of valid reasoning with frequent illustrations of their application to scientific and popular discussion; as well as a detailed examination of the types of fallacious reasoning most commonly perpetrated in literature and daily life. Fortnightly exercises will be set and will form an important feature of the course. Three hours weekly, throughout the second term.

Text-book: S. H. Mellone, Introductory Text-Book of Logic, (*third edition*), chs. 1-4 (omitting section V, ch. 4) 5, 6, 7 and 10. Use will also be made of Lafleur's Illustrations of Logic.

1C. Introduction to Philosophy.—A short course of lectures upon the nature of philosophy and its relation to the sciences, and its place as a university study. Study and class-room discussion of some easy piece, or pieces, of typical philosophical literature such as Descarte's Discourse on Method or Berkeley's "Three Dialogues" or Plato's Phaedo. One hour weekly.

Third or Fourth Year.

2A. Moral Philosophy.—In the first term a course on the outlines of Ethical Theory. The following topics—among others—will be treated of by means of short sets of lectures.

study-notes, private reading, exercises, discussion, etc.:—the phenomena of the moral life in the individual and in the race; the postulates of ethical science; the relations of Ethics to the sciences, to law, politics, education, etc.; theories of conscience and the moral standard; ancient and modern conceptions of Moral Philosophy; the ethics of idealism and the ethics of evolution; the theory of moral progress.

2B. In the second term a course on the problems of Social Philosophy and Applied Ethics.

Short sets of lectures will be given upon the following topics; Ethics and the sociological movement of recent years; biological and psychological theories of society and of social progress; the ethics of the social questions; the duties and the virtues; the unity of the moral life; moral pathology; moral training; the ethical problem of the present.

Some modern manual will be used for purposes of class-room discussion, but the student will constantly be referred to the literature of the subjects treated, and to sources of independent investigation.

The course will be varied from year to year according to the needs of the subject and those of the students.

Four hours per week.

For a continuation course, see either 5A, 5B, or two of the courses 7, 8, 9, 10, etc.

3. Experimental Psychology.—An elementary laboratory course. Open to those who have taken the elementary course. Four hours per week and one lecture. Reading and thesis. Text-book: Myers, Text-book of Experimental Psychology, supplemented by additional experiments. Two lectures, and two to four laboratory periods.

4. Logic and Theory of knowledge.

A. Logic of Scientific Method.—The pre-suppositions and methods of the physical sciences. Theory of Scientific proof. The relation of the historical to the physical sciences. Classification of the Sciences. Use of the Theory of Probabilities.

B. Introduction to the Theory of Knowledge. Discussion of the relation of the Theory of Knowledge to Logic, Metaphysics and Psychology; analysis of the pre-suppositions of Logic and of the ultimate nature of judgment; problem of perception and the reality of the external world; relation of thought and reality; the nature of knowledge and truth.

Reading Recommended:—Mill, System of Logic, Books III and VI; Jevons, Principles of Science, chapters VII and X to XXX; Hobhouse, Theory of Knowledge, Part III; Selected portions of Sigwart's Logic Vol. II.

Works of Reference:—Lotze, Logic; Sigwart, Logic; Venn, Empirical Logic, and Logic of Chance; Pearson, Grammar of Science; Couturat, Les Principes des Mathématiques.

Four hours a week throughout the Session. May be given in alternate years instead of course 5.

5A. History of Modern Philosophy.

First Term: From the Renaissance to Kant.

Four hours a week.

5B. Second Term:—From Kant to the Present Time.

Books of Reference:—Rand's Modern Classical Philosophers (selections), the texts of the *Open Court Pub. Co.*, the various histories of philosophy—Falckenberg, Weber, Höffding, etc.

Four hours a week.

6. Educational Psychology:—Psychological basis of educational theory and practice. Lectures, reports and thesis. Open to those who have taken the Elementary course in Psychology. Text-book: Münsterberg, Psychology and the Teacher. Two hours per week during the second term of the session.—Mainly for Educational students.

Some of the above courses may occasionally be taken in connection with graduate work.

Honour Courses.

Third and Fourth Years.

Honour students will take course 5A and 5B and in addition some of the following:—

7. Advanced Psychology.—Lectures, reports and thesis. Open to students who have taken the Elementary course. Text-books: MacDougall, Physiological Psychology; James, Principles of Psychology; and others.

Two to four hours weekly.

8. A course in Greek Philosophy. Students are expected to make an independent study of the fragments of one of the early philosophers, and to write an essay embodying the results of their study.

Pre-Socratic Physicists in Ionia, Italy and Sicily. The Athenian Period, and the rise of systematic Logic, Ethics and Psychology: Socrates, Plato, Aristole. General diffusion of Philosophy over ancient life as a rule of conduct: Stoicism, Epicureanism, Scepticism.

Books of Reference:—The various source-books such as Ritter and Preller, Fairbanks, Bakewell, Wallace, etc. Zeller's Outlines and History; Aristotle's Metaphysics, Book I, Taylor's Translation.

Two hours weekly.

9. The Philosophy of Kant.—Lectures, study notes, and discussions of the writings of Kant, with a study of Kant's influence upon philosophy. The various translations of Kant or of portions of Kant's writings (Watson's *Selections* e.g.) will be used, with use of the German text where possible. Two hours weekly throughout the session. May be taken with 7 or 10 or 11 or 12, to make a four-hour course.

10. Psychological Seminary.—Application of Experimental Psychology to problems in Education, Law, Medicine, Art. Two consecutive hours weekly throughout the session. Open to those who have had some work in Psychology.

11. Metaphysics:—A course dealing with the fundamental problems of Theoretical Philosophy, such as: The Nature of Space and Time; the Cosmological Problem of Infinity; the Nature of Reality (including the Problem of Mind and Body); Realism and Idealism; Monism and Pluralism. Students will from time to time be referred to such works as: Bradley, Appearance and Reality; Taylor, Elements of Metaphysics;

Ward, Naturalism and Agnosticism; Riehl, Philosophischer Kriticismus, Part II, English translation; and will be expected to write an essay on some selected topic connected with the course.

Two hours weekly.

12. Problems of Comparative Psychology, including some chapters of Child Psychology. Two hours weekly.

Books of Reference: — Hobhouse, Mind in Evolution; Lloyd Morgan, Comparative Psychology, Animal Behaviour, Habit and Instinct; Preyer, Die Seele des Kindes; Baldwin, Mental Development in Child and Race.

13. Advanced Moral Philosophy.—Designed to meet the wants of students who have taken course 2, or who are otherwise competent to undertake the study of the more important works (Classical or Modern) upon the theory of morals, or to pursue the study of special questions in Ethics and Social Philosophy.

As a rule a careful study will be undertaken of the following works:—Aristotle's Ethics, Green's Prolegomena to Ethics, Sidgwick's Methods of Ethics, along with prescribed portions of writers like Spencer, Stephen, Martineau, and others. Special topics, however, (both in Theoretical and Applied Ethics) will also be prescribed for investigation and discussion, and the course will be varied from year to year to suit the needs and the capacities of students. It may occasionally be applied to suit the needs of advanced students in other departments, such as Classical or Modern Literature, Political Economy, Biology, History. Two or more hours weekly throughout the session.

14. Psychological Laboratory.—Experimental investigation in human psychology by advanced students, or by those who can show fitness for such work. Four hours weekly throughout the session.

15. Seminary in Philosophy.—Topics to be chosen from time to time according to the needs of students.

The reading and discussion of Spinoza's Ethic may be undertaken during the session of 1910-11. Two hours or more weekly.

Graduate study and Seminary Work may be undertaken in connection with any of the more advanced of the above courses, *e.g.* Nos. 7, 8, 9, 10, 11, 12, 13. All such work, however, will as a rule depend upon the previous training of the student, and upon his capacity for original research under the personal guidance of members of the Department.

Fourth year students are expected to present an essay or thesis to be approved by the Department.

Summer Readings.—All students in philosophy, after the Second Year in Arts, are encouraged to undertake a course of summer reading in connexion with their winter work.

Those contemplating graduate work are recommended to correspond with the Department in the Spring or Summer preceding their period of registered study.

(*For Honour Courses in Philosophy, see also page* 103).

DEPARTMENT OF HISTORY.

PROFESSOR:—CHARLES W. COLBY, M.A., PH.D.
ASSOCIATE PROFESSOR:— ————————
ASSISTANT PROFESSOR:—C. E. FRYER, M.A., PH.D
TUTOR:—ETHEL HURLBATT, M.A., T.C.D., *Warden of the Royal Victoria College.*

ORDINARY COURSES.

First Year.

1. Great Men and Great Movements.

In this course no attempt will be made to present an epitome of fact. The aim of the lectures is rather to stimulate the beginner's interest in historical reading through an appeal to biography and the chief episodes in the progress of European thought. The sessional examination will be based on the following texts:—

Butcher, "What We Owe to Greece"; Thucydides, The Funeral Speech of Pericles, Book II, sections 35-46, Jowett's translation; Plutarch, Life of Timoleon, Clough's translation; Mommsen, Character Sketch of Julius Cæsar, History of Rome; Matthew Arnold, Essay on Marcus Aurelius; Freeman, Ancient Greece and Mediæval Italy; Einhard, Life of

Charlemagne, Glaister's translation; Macaulay's Essays on "Ranke's History of the Popes," and "Clive"; Macaulay's State of England in 1685, History of England, chapter III; Parkman, The Heroes of the Long Sault; Stevenson's Essay on the English Admirals.

The results of the examination will be counted under the head of English, and at intervals students will be required to present short essays on historical subjects. A few illustrated lectures may also be given if suitable hours can be found.

One hour a week.

Second Year.

2. England in the Eighteenth Century.

A survey of political development, social conditions and colonial expansion between 1688 and 1784. Readings will be assigned and tested by short papers in the class-room.

Two hours a week.

Third or Fourth Year.

3. The History of Europe from the accession of Augustus to the death of Luther, B.C. 27—A.D. 1546.

In this course special attention will be given to institutions and movements. Topics for investigation will be assigned, and students will write at least one thesis during the year. Readings to accompany each lecture are assigned in the syllabus for the course.

Four hours a week.

HONOUR COURSES.

Third and Fourth Years.

4. The Renascence. Two hours a week.

5. The Early Reformation. Two hours a week.

6. The Catholic Revival and the Thirty Years' War. Two hours a week.

7. The History of England since 1784. Four hours a week. (Omitted 1910-1911).

8. The Political and Constitutional History of Europe since 1789. Four hours a week.

9. Canada, Government and Public Policy. Four hours a week for the first term.

10. English Constitutional History—1307. Two hours a week.

11. History of Canada, 1810-1867. Two hours a week.

12. Topics in Recent History. A discussion of political questions and tendencies since the Franco-German war, with special reference to the partition of Africa, the Eastern question and the shaping of the Far East. The consolidation of the British Empire and the position of the United States as a world power will be touched upon.

Texts:—Honour Students in History will be examined at the end of the Third Year on the following texts:—Herodotus, VI-VII, Macaulay's trans.; Thucydides, I, II, 1-65, VI, VII, Jowett's trans.; Plutarch, The Lives of Themistocles, Pericles, Pyrrhus, Caius Gracchus, Cato the Younger, and Julius Cæsar, Clough's trans.; Polybius, Book VI-IX, Shuckburgh's trans.; Livy, Books XXI-XXII, Church and Brodribb's trans.; Tacitus, Annals, Book I, Germania, Vita Agricolæ, Church and Brodribb's trans.

Honour students in History will be examined at the end of the Fourth Year on the following texts:—Clarendon, History of the Rebellion, Book VII; Burnet, History of My Own Time, Book IV, from the beginning of 1689 to the end of the book; Gibbon, Decline and Fall, chapters I, II, III, XXIII, L, LVII, LVIII; Burke, Reflections on the French Revolution; Macaulay, History of England, chapters IV-IX; Captain Mahan, Influence of Sea Power on History; Buckle's History of Civilization, chapters I-II; Parkman, Montcalm and Wolfe; Lord Acton, Lectures on Modern History.

Summer Readings.—All students in History are expected to follow a course of summer readings as a preparation for the work of the ensuing session. Special programmes will be drafted with a view to individual needs.

(*For Honour Courses in History, see also page* 103.)

General Courses.

The courses below are required for First and Second Year students in Architecture, and for First and Second Year students in Commerce. They are open to all partial and special students; but are not taken ordinarily by candidates for a degree in Arts. They are designed to offer such an outline knowledge of European history as may be applied to the pursuit of professional studies for which an historical background is of value.

13. European history to the Fifteenth Century.—Two hours a week. (Omitted in 1910-11).

A survey of European history by periods, with a study of the civilizations of the Early Orient, of Greece and Rome, of mediæval Europe and of the Byzantine Empire. Stress will be laid upon chronology and upon historical geography. Students will provide themselves with Putzger's: Historischer Schul Atlas. A considerable range of reference reading will be expected, to be tested by short papers written in the classroom.

14. European history since the Fifteenth Century.—Two hours a week.

A continuation of Course 13 above.

Courses 13 and 14 will be given in alternate years.

DEPARTMENT OF ECONOMICS AND POLITICAL SCIENCE.

Professor:—Stephen B. Leacock, Ph.D.
Assistant Professor:—J. C. Hemmeon, Ph.D.

Ordinary Courses.

Second Year.

1. Elements of Political Economy.

Two hours per week throughout the session. Dr. Leacock

Text-Book:—John Stuart Mill, Principles of Political Economy.

Third or Fourth Year.

2. PRINCIPLES OF ECONOMIC THEORY.
Four hours per week throughout the session. Dr. Hemmeon.

3. PRINCIPLES OF POLITICAL SCIENCE.
Four hours per week throughout the session. Dr. Leacock

HONOUR AND CONTINUATION COURSES.

4. MONEY AND BANKING. Four hours per week during the last half of the session. Dr. Leacock.

5. ECONOMIC HISTORY. Four hours per week during the first half of the session. Dr. Hemmeon.

6. POLITICAL ECONOMY PRIOR TO THE NINETEENTH CENTURY. (Omitted in 1910-11).

7. POLITICAL ECONOMY IN THE NINETEENTH CENTURY. (Omitted in 1910-11).

8. THE GOVERNMENT OF CANADA.
Four hours per week during the first half of the session. Dr. Leacock.

9. PUBLIC FINANCE.
Four hours per week during the last half of the session. Dr. Hemmeon.

10. TRANSPORTATION PROBLEMS.
Two hours per week throughout the session. Dr. Hemmeon.

11. SEMINARY. The work in the Seminary is arranged in accordance with the special needs of the session. Dr. Leacock and Dr. Hemmeon.

Honour Students of the Third Year will take Courses 2, 3, 4, 5, together with Ordinary History or French or Philosophy of the Third Year.

Honour Students of the Fourth Year will take Courses 4, 5, 8, 9, 10; together with a half course in History, French, Philosophy or Roman Law as arranged in consultation with the Department.

Students of the Fourth Year who have taken the Third Year Ordinary Course in Political Economy may offer as a continuation, Course 3 or Courses 4 and 5.

Students of the Fourth Year who have taken the Third Year Ordinary Course in Political Science may offer as a continuation, Course 2 or Courses 8 and 9.

Four Exhibitions known as the Mackenzie Exhibitions, are awarded annually in the Department, two of the value of one hundred dollars and two of the value of fifty dollars. For regulations see page 57.

(*For Honour Courses in this subject, see also page* 103).

DEPARTMENT OF EDUCATION.

PROFESSOR:—J. A. DALE, M.A. (Oxon.)
MASTER OF METHOD:—E. M. CAMPBELL, B.A. (McGill).
HEAD OF THE SCHOOL FOR TEACHERS, MACDONALD COLLEGE:—
S. B. SINCLAIR, Ph.D. (Chicago).
SESSIONAL LECTURER IN EXPERIMENTAL PSYCHOLOGY:—
WILLIAM D. TAIT, Ph.D. (Harvard).

Third or Fourth Year.

1. MODERN SYSTEMS. Two hours a week for the first term: W. 5, Th. 5. Prof. Dale.

2. HISTORY OF EDUCATION. Two hours a week for the second term: W. 5, Th. 5. Prof. Dale.

3. (a) MEANING OF EDUCATION. One hour a week for the first term: M. 5. Prof. Dale.

3. (b) Supplementary class: T. 9.

4. EDUCATIONAL PSYCHOLOGY. Two hours a week for the second term. M. 5, W. 4. Dr. Tait.

5. OBSERVATION AND PRACTICE WORK. 50 half days.

These Courses (1-5), are required for the First Class Academy Diploma of the Province of Quebec; 3 and 4 need not be taken in the same year as 1-2; 5 can be taken largely out of term-time, and may be divided between the years.

Exemptions are given on evidence of previous successful experience in teaching.

6. PHYSICAL EDUCATION. A course of 20 lessons of 1½ hours each is offered on the principles and practice of physical education. The course will cover elementary anatomy, physiology and hygiene, the theory of gymnastics and class teaching. Students will be required to give four lessons (practical, to

children, in the presence of the Physical Director, and to take an examination. Those whose work is satisfactory will have the fact recorded on their Diplomas, which will add considerably to their value. Attendance will be credited towards the Observation and Practice work. T. 5. Miss Cartwright and Dr. Harvey.

7. SCHOLL ART. A course of 20 lessons is offered on the principles and practice of art in relation to school-work: comprising brush-work, drawing, blackboard work, elements of design and education. Prof. Armstrong.

GRADUATE COURSE.

8. SEMINAR:—Readings, reports, thesis. Two consecutive hours, alternate weeks, throughout the session. Prof. Dale and Dr. Tait.

COURSE FOR ELEMENTARY AND MODEL SCHOOL DIPLOMAS.

The training for these Diplomas is conducted at Macdonald College: (see under "Macdonald College.").

An Exhibition of $150 is offered in the Faculty of Arts to the best applicant from the Model Class, who has fulfilled the entrance requirements.

CONSTITUTIONAL LAW.

PROFESSOR:—F. P. WALTON, B.A., LL.B., LL.D. (DEAN OF THE FACULTY OF LAW).

The Constitutional Law of Canada will be treated in the following order:—1, Canadian Constitutional History prior to Confederation. 2. The British North America Act, and the leading cases under it which illustrate the respective powers of the Dominion and the Provinces. 3. The fundamentals of English Constitutional Government which form the basis of the Canadian Constitution. 4. The Cabinet System. 5. The difference between English and French practice as to responsibility of officials.

Two hours a week.

ROMAN LAW.

PROFESSOR:—F. P. WALTON, B.A., LL.B., LL.D. (DEAN OF THE FACULTY OF LAW).

A Course is offered in Roman Law, open to Third and Fourth Year students in Arts, and qualifying as an option for the B.A. Degree. For details, see under Faculty of Law, page 261.

DEPARTMENT OF MATHEMATICS.

PROFESSOR:—J. HARKNESS, M.A., F.R.S.C.
ASSOCIATE PROFESSOR:—A. S. EVE, D.Sc., F.R.S.C.
ASSISTANT PROFESSOR:—T. RIDLER DAVIES, B.A.
LECTURER:—A. G. HATCHER, M.A.

ORDINARY COURSES.

First Year.

1. PLANE AND SOLID GEOMETRY.—The equivalent of Books IV, VI and XI of Euclid, with supplementary matter from Hall and Stevens' Euclid.
ALGEBRA.—Hall and Knight's Elementary Algebra (omitting chapters 40-42 inclusive), or the same subject matter in similar text books.
TRIGONOMETRY.—Hall and Knight's Elementary Trigonometry to page 210 and chapter 19.
Nature and use of logarithms. (Bottomley's four figure tables).
Four hours per week.

Second Year.

2. GEOMETRY.—(*a*) Solid Geometry, continuation of the First Year; (*b*) Geometrical Conic Sections, Wilson's Solid Geometry and Geometrical Conics.
ALGEBRA.—Permutations and Combinations; Binomial Theorem; Exponential and Logarithmic Series; Interest and Annuities; Undetermined Coefficients; Partial Fractions; Summation of typical series; Probabilities; Determinants; Graphic Methods.

Text-Book:—Hall and Knight's Higher Algebra.
Three hours per week.

SPHERICAL TRIGONOMETRY.—A short course compulsory for students proceeding to the Faculty of Applied Science. Students taking the Advanced Course in Mathematics are recommended to take this course.

Third or Fourth Year.

3. ELEMENTARY ANALYTICAL GEOMETRY; elementary parts of the DIFFERENTIAL AND INTEGRAL CALCULUS; simple DIFFERENTIAL EQUATIONS.
Four hours per week.

4. ASTRONOMY. — This course is intended to give a general account of the main facts of Astronomy, and the methods by which these facts are obtained. It may be taken by students who have attended the ordinary or advanced courses in mathematics of the first two years.
Two hours per week.

ADVANCED COURSES.

First Year.

5. SELECTED TOPICS IN MODERN PURE GEOMETRY.—Hall and Knight's Higher ALGEBRA; Burnside and Panton's THEORY OF EQUATIONS (selected course); TRIGONOMETRY, as in ordinary course; HIGHER TRIGONOMETRY, Carslaw's Plane Trigonometry.

Second Year.

6. ANALYTICAL GEOMETRY.—Smith's Conic Sections.
DIFFERENTIAL AND INTEGRAL CALCULUS.—Lamb's Infinitesimal Calculus and Osgood's Calculus.
Four hours per week.
Students are recommended to take the special short course in Spherical Trigonometry.

7. DYNAMICS, STATICS AND HYDROSTATICS.—A course of two hours per week, for students who are proceeding (1) to the Faculty of Applied Science, or (2) to Third Year Honours in Arts.

HONOUR COURSES.

Third Year.

8. Selected topics in Differential and Integral Calculus.
9. Differential Equations.
10. Geometry of Three Dimensions.
11. Vector Analysis.

In addition students reading for Honours will be required to take courses under Physics, see page 160.

Fourth Year.

The courses given will be selected from the following:—

12. Introduction to the Theory of Functions.
13. Elliptic Functions.
14. Lectures in connection with Scott's Modern Analytic Geometry and the early chapters of Salmon's Higher Plane Curves.
15. Lectures on Modern Geometry, based on Reye's Geometry of Position.

In addition students reading for Honours will be required to take courses under Physics, see page 160.

(*For Honour Courses in Mathematics, see also page* 104.)

DEPARTMENT OF PHYSICS.

PROFESSORS:— HOWARD T. BARNES, D.Sc., *Director*.
HAROLD A. WILSON, D.Sc., F.R.S.

ASSISTANT PROFESSOR:—H. L. BRONSON, PH.D. (Yale).

LECTURERS:— F. H. DAY, M.Sc.
N. R. GILLIS, M.Sc.

LECTURER IN RADIO-ACTIVITY:—A. S. EVE, D.Sc.

DEMONSTRATORS:— A. L. DICKIESON, M.Sc.
N. E. WHEELER, B.Sc.
A. N. SHAW, M.Sc.
A. G. HATCHER, M.A.
G. St. G. SPROULE, M.Sc.

ORDINARY COURSES.

First Year.

1. PHYSICS.—This course has two objects: (1) to give the minimum acquaintance with Physical Science requisite for a liberal education to those whose studies will be mainly literary; (2) to be introductory to the courses in Chemistry and

other branches of Natural Science, and to the more detailed courses in Physics in the Third and Fourth Years. Only the most important principles in each branch of the subject will be treated, as far as possible, with reference to their historical development and mutual relations. Two lectures will be given per week which will be fully illustrated by experiments. During the Session each student will be required to attend in the laboratory, and make measurements involving the use of the following instruments:—*Balance, Pendulum, Barometer, Thermometer, Sonometer, Telescope, Microscope, Tangent Galvanometer, Wheatstone's Bridge.*

Mechanics. Velocity, space-time diagram; acceleration, velocity-time diagram; composition of velocity and accelerations; mass, force, weight, Attwood's machine; resultant of two forces acting at a point; equilibrium; centre of gravity; simple machines, work, calculation of force exerted by machines by equality of work done on the machine and work done by the machine; fundamental properties of solids, liquids and gases; fluid pressure, hydraulic press, density and specific gravity; specific gravity of gases; atmospheric pressure; Boyle's Law.

Light.—Sources and propagation of light; Rumford's and Bunsen's photometers; reflection and refraction at plane surfaces; the sextant; concave mirrors; convex lenses; the magnifying glass, the eye and spectacles; combination of two lenses to form a telescope or microscope; the velocity of light; simple experiments illustrating dispersion, polarization and interference.

Heat.—Temperature and the mercury in glass thermometer; expansion of solids, liquids, and of gases at constant pressure; specific heat of solids; latent heats of fusion and evaporation; the mechanical equivalent of heat; conduction, convection, and radiation.

Sound:—production and propagation of sound; nature of wave motion; vibration of strings; organ pipes; resonance.

Electricity and Magnetism:—Natural and artificial magnets; magnetic poles; magnetization by induction; molecular theory

of magnetism; lines of force; the mariner's compass; electrical attractions and repulsions; the goldleaf electroscope; electrical induction; Faraday's ice-pail experiment; the electrophorus and Whimshurst machine; magnetic heating and chemical effects of currents; simple cell; the Daniell cell; the tangent galvanometer; proportionality of current and E.M.F. for a given conductor; force on a current in a magnetic field; motors; induction of currents and the dynamo; the induction coil; applications of electricity for practical purposes.

Two hours a week. *Text-book*:—Gregory and Hadley (Macmillan).

Third Year.

2. EXPERIMENTAL PHYSICS.—(*First Course.*)—Laws of energy, sound, light and heat. *Text-book*:—Watson, (Longmans).

Lectures fully illustrated. Two hours a week; with Laboratory Course, three hours a week.

Laboratory Manual.—Tory and Pitcher.

HEAT:—Construction and calibration of thermometers; melting and boiling points; air thermometer; expansion of solids, liquids and gases; calorimetry; specific and latent heats; laws of vapour pressure; radiation; the mechanical equivalent of heat, and elements of thermodynamics.

SOUND.—Wave motion, velocity of sound; vibration of tuning forks, strings and air columns; pitch; musical scales; interference; resonance.

LIGHT.—Photometry; laws of reflection and refraction; indices of refraction; focal lengths and magnifying powers of mirrors, lenses, telescopes and microscopes; dispersion; interference; diffraction; polarisation.

Fourth Year.

3. EXPERIMENTAL PHYSICS.—(*Second Course.*)—Electricity and Magnetism. *Text-book*:—Whetham's Experimental Electricity.

Lectures fully illustrated. Two hours a week; with Laboratory Course, three hours a week.
Laboratory Manual.—Tory and Pitcher.

MAGNETISM.—Pole strength, magnetic force, moment of a magnet, intensity of magnetisation, magnetic potential, terrestrial magnetism.

ELECTROSTATICS.—Quantity of electricity; electric force and potential; capacity of condensers; specific inductive capacity; current electricity; magnetic field of currents; force on currents in a magnetic field; Ohn's Law; resistance; chemical effects of currents; heating effects of currents; electromagnetic induction of currents; thermo-electricity; magnetic properties of iron and steel; diamagnetism; electric waves; discharge through gases; cathode and Roentgen rays; radioactivity.

Third or Fourth Year.

4. Mechanics and Hydrostatics.—Two hours a week.

HONOUR COURSES.

Third and Fourth Years.

5. Analytical statics; dynamics of a particle; rigid dynamics; hydromechanics.
6. Properties of matter.
7. Heat, Thermodynamics and Sound.
8. Electrical Measurements.
9. Elements of Electrical and Optical Theory.
10. Advanced course in Electrical and Optical Theory.
11. Radioactivity.

(*For Honour Courses in Mathematics and Physics, see also page* 104.)

DEPARTMENT OF CHEMISTRY.

PROFESSOR:—J. WALLACE WALKER, M.A., PH.D., *Director.*
ASSOCIATE PROFESSORS:—NEVIL NORTON EVANS, M.A.S.c.; DOUGLAS MCINTOSH, D.Sc.
LECTURER:—F. M. G. JOHNSON, Ph.D.
DEMONSTRATOR:—W. BUELL MELDRUM, M.A.
PROFESSOR OF ORGANIC AND BIOLOGICAL CHEMISTRY (Faculty of Medicine):—R. F. RUTTAN, B.A., M.D.

ORDINARY COURSES.

Second Year.

1. GENERAL CHEMISTRY.—A Course of lectures on Elementary Chemical Theory, and on the principal elements and their compounds. The lectures are fully illustrated by means of experiments.

   Text-books:—Holleman's Text-book of Inorganic Chemistry (Translation by Cooper); Remsen's Organic Chemistry. *For Reference*:—Bloxam's Chemistry. Three hours a week.

   ELEMENTARY PRACTICAL CHEMISTRY.—This course is compulsory for all undergraduates taking the above course of lectures. The work includes experiments illustrative of the laws of chemical combination, the preparation of pure chemical compounds, and elementary Qualitative Analysis. Four hours a week.

Third Year.

2. ORGANIC CHEMISTRY.—A general introductory course of lectures on Organic Chemistry.

   Text-book:—Holleman's Organic Chemistry, or Remsen's Organic Chemistry. Three hours per week during the first term.

3. INORGANIC CHEMISTRY.—A course on Historical and Physical Chemistry. Two hours per week during the second term.

4. Advanced Practical Chemistry.—The preparation of simple organic substances in the first term, and laboratory practice in methods of gravimetric and volumetric analysis during the second term.

Text-book:—Holleman's Laboratory Manual of Organic Chemistry. Three hours a week in the first term and six hours a week in the second.

Fourth Year.

5. Organic Chemistry.—A systematic course of lectures on Organic Chemistry, including the analysis of organic substances, calculation of formulæ, determination of molecular weights, polymerism, isomerism, etc., followed by a discussion of the more important derivatives of the aliphatic and aromatic series of compounds. Two hours a week.

6. Practical Organic Chemistry.—A complete course on the preparation and analysis of organic substances, with determinations of molecular weights, etc.

7. Physical Chemistry.—The lectures are a continuation of those given during the Third Year and include Thermo-Chemistry, the principles of Thermodynamics as applied to chemical action, osmotic phenomena and their application in deducing the ionisation theory of solutions, a study of such physical properties of gases, liquids and solids as are known to depend on their chemical constitution, the phase rule and Electro-Chemistry.

Two hours a week.

Books of Reference:—Ramsay's Text-Books of Physical Chemistry.

8. Practical Physical Chemistry.—Laboratory work will include the various methods of determining the molecular weights of gases and of substances in solution, accurate measurement of densities, refractive indices, surface tensions and specific rotations; also examples of chemical statics and kinetics, and electro-chemical measurements.

9. MINERAL ANALYSIS.—A course of advanced quantitative analysis.

HONOUR COURSES.

Third Year.

Honour students in the Third Year will be required to take all the ordinary courses of that Year and in addition do extra reading and laboratory work.

Fourth Year.

Honour students in the Fourth Year will take courses 5, 6, 7 and 8 *or* 7, 8 and 9.

(*For complete Honour Courses in Chemistry, see page* 104.)

DERARTMENT OF GEOLOGY AND MINERALOGY.

PROFESSOR:—FRANK D. ADAMS, D.Sc., PH.D., F.R.S.
ASSISTANT PROFESSOR:—J. AUSTEN, BANCROFT, Ph.D.
LECTURER:—RICHARD P. D. GRAHAM, M.Sc.
SESSIONAL LECTURER:—ALFRED E. BARLOW, M.A. D.Sc.

ORDINARY COURSES.

Second Year.

1. PHYSICAL AND COMMERCIAL GEOGRAPHY.—This course will be devoted to a study in outline of the physical features of the earth, and their influence upon commerce, especially upon the distribution and utilization of commercial commodities. In so far as practicable, a study will be made of the resources of the various countries of the world, and especially of the Dominion of Canada.

Two hours a week throughout the year.

N.B.—This forms part of the Commercial Course of the Second Year.

Third Year.

2. GENERAL GEOLOGY.—The lectures will embrace a general survey of the whole field of Geology, and will be introduced by a short course in Mineralogy. Especial attention will be devoted to Dynamical Geology and to His-

torical Geology, including a description of the fauna and flora of the earth during the successive periods of its past history.

The lectures will be illustrated by the extensive collections in the Peter Redpath Museum, as well as by models, maps, sections and lantern views. There will be an excursion every Saturday until the snow falls, after which the excursion will be replaced by a demonstration in the Museum.

Text-book:—Scott, An Introduction to Geology.

Books of Reference:—Dawson, Hand-Book of Geology; Dana, Manual of Geology.

Three hours a week throughout the year, with additional excursions and demonstrations as above stated.

HONOUR COURSES.

Third Year.

In the Third Year, students pursuing the Honour Course will take General Geology, 2.

3. MINERALOGY.—Lectures and demonstrations illustrated by models and specimens in the Peter Redpath Museum and the Macdonald Chemistry and Mining Building. Among the subjects discussed are:—crystallography; physical properties of minerals dependent upon light, electricity, state of aggregation, etc.; chemical composition, calculation of mineral formulæ, quantivalent ratios, etc.; principles of classification, description of species.

Two hours a week.

4. DETERMINATIVE MINERALOGY.—Laboratory practice in blow-pipe analysis and its application to the determination of mineral species. This work is carried on in the laboratory provided for the purpose in the Chemistry and Mining Building.

Wednesday and Thursday, 2 to 6 p.m. in second term.

Fourth Year.

5. MINERALOGY (In continuation of No. 3).—Description of species, particular attention being paid to those which are important as rock constituents and to the economic minerals of Canada: measurement of the angles of crystals with the reflection goniometer; projection of crystal forms; calculation of axial ratios of crystals; drawing of crystal forms; use of the polarising microscope, axial angle apparatus, etc.

First term, two hours a week.

6. PETROGRAPHY.—The modern methods of study employed in Petrography are first described, and the classification and description of rocks are then taken up.

One lecture a week during the first term. One afternoon a week throughout the year will be devoted to special microscopical work in the Petrographical Laboratory.

Text-books—Harker, Petrology for Students.

Books of Reference:—Rosenbusch, Microskopische Physiographie, and Zirkel, Lehrbuch der Petrographie.

7. A. PALÆONTOLOGY.—An extension of the Palæontology of Course 2, with special studies of some of the more important groups of fossils.

One lecture a week during the second term and one demonstration a week, with special studies in the Peter Redpath Museum.

Books of Reference:—Nicholson and Lydekker, Manual of Palæontology; Zittel & Eastman, Text-Book of Palæontology.

or

7. B. PHYSIOGRAPHY.—A description of land forms with reference to their origin, classification, drainage, development, climatic and human controls.

The physical features of Canada will be described during the latter half of the course.

The course will consist of lectures, demonstrations, and laboratory work, and will be illustrated by maps, models, and lantern slides.

Two hours a week during the first term.

Books of Reference:—Davis, Physical Geography; Mill, The International Geography.

8. Ore Deposits and Economic Geology.—The nature, mode of occurrence and classification of ore deposits will first be taken up. A series of typical occurrences will then be described and their origin discussed—the more important non-metallic materials—*e.g.*, fuels, clay, abrasive materials, building stones, etc., will be similarly treated, as well as questions of water supply, artesian wells, etc.

The course will be illustrated by maps, models, lantern slides, and specimens.

Three lectures a week throughout the second term.

Text-books:—Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States and Canada; Philips and Louis, A Treatise on Ore Deposits; Beck, Ore Deposits.

Books of Reference:—The Reports of the Geological Survey of Canada and the Monographs of the U. S. Geological Survey

9. Practical Geology.—This course is a continuation of the general geology of the Third Year and commences with the consideration of the structural features of the earth's crust, resulting from sedimentation, folding, faulting, the various phases of igneous intrusion, etc., with special reference to engineering problems. A discussion of the methods employed in carrying out geological and magnetic surveys and in the construction of geological maps and sections, as well as the interpretation of these, is then taken up.

One lecture a week throughout the year.

10. CANADIAN GEOLOGY.—A general description of the geology and mineral resources of the Dominion.

One lecture a week during the first term.

Text-book:—Dawson, Hand-book of Geology.

Books of Reference:—The Reports of the Geological Survey of Canada.

11. GEOLOGICAL COLLOQUIUM.—A discussion each week of some geological topic, references to the literature of which have been given in the week preceding. The course is intended to give students some acquaintance with geological literature, as well as a wider knowledge of the great principles which underlie the Science.

One hour a week throughout the year.

12. GEOLOGICAL SURVEY.—Candidates for Honours in the Fourth Year will also undertake, under the direction of the Demonstrator in Geology, a geological survey of some suitable area selected for that purpose. This survey will occupy two weeks, and will be made either at the close of the Third Year or immediately before the opening of the regular work of the Fourth Year, as may be arranged by the Professor of Geology. The preparation of a geological map of the surveyed area, the examination of the specimens collected, and the writing of a detailed report upon the area, will form part of the work of the Fourth Year.

N.B.—A large amount of additional private reading will also be required of candidates for Honours.

(*For Honour Courses in Geology, see also page* 104.)

DEPARTMENT OF BOTANY.

PROFESSOR:—D. P. PENHALLOW, D.Sc.
ASSISTANT PROFESSOR:—C. M. DERICK, M.A.
DEMONSTRATOR:— ————————

ORDINARY COURSES.

Second Year.

1. ELEMENTARY BIOLOGY.—Second half of the session. A course in the general morphology of plants, embracing a discussion of the general principles of morphology and classifica-

tion, respiration, photosynthesis, nutrition, reproduction, symbiosis and adaptations, and the relations of plants in geological time. These studies will be illustrated by means of special types taken from the principal groups.

This course is designed with special reference to those who may not be able to carry such work beyond the limits of an elementary course, and as a basis for more specialized work in the Third and Fourth Years.

Two lectures and two laboratory periods each week.

For the first half of this course, see Zoology 1A, page 172.

Third Year.

2. SPECIAL MORPHOLOGY.—This course is designed to give a comprehensive knowledge of plant structures and relationships. The principles of development will be illustrated by type studies which may also serve as the basis of more special work in Bacteriology, Physiology, Ecology, or Palæobotany.

It comprises:—

(*a*) *First Half of the Session.*—During the autumn term, attention will be directed to a study of the general histology of the plant, with special reference to the seed plants, as a basis for the more advanced work of the Fourth Year; and to differential reactions, methods of staining, imbedding, section cutting and general technique.

This course will be especially adapted to chemists who wish to study food adulterants, etc.; to those who are intending to follow a medical course in animal histology; and it will be required of all who elect the course in the Fourth Year.

The course pre-supposes familiarity with the optics of the microscope as given in Physics 1, (3) of the First Year.

(*b*) *Second Half of the Session.*—Critical studies of the Thallophyta by means of selected types designed to illustrate the origin of organs, the origin and development of sex, the division of labour and the general laws of development.

Two lectures and two laboratory periods each week throughout the Session.

Fourth Year.

3. SPECIAL MORPHOLOGY.

(*a*) The complete study of a series of selected types, illustrating the structure, origin and relationships of the Bryophytes and Pteridophytes.*

(*b*) The special morphology of the seed plants, with special reference to the relationship, development and adaptations of the principal groups.

Students entering upon this course will be required to present qualifications equivalent to the course of the Third Year.

Two lectures and two laboratory periods each week throughout the Session.

For the work of the Third and Fourth Years, each student will be required to provide himself with a laboratory drawing book of specified form, and with necessary pencils, slides and cover glasses.

4. SYSTEMATIC BOTANY.—A special course embracing herbarium work and the systematic study of the seed plants, including the determination of species, their environment and mutual relations. These studies will lead to a field knowledge of the ferns and flowering plants in the neighbourhood of Montreal.

This course is designed to complete and round out the study of the higher plants given in the courses on Special Morphology (2 and 3). Students specializing in Botany will be required to follow this as part of the ordinary course of the Fourth Year. The course is also open to teachers of schools and to others who may have gained a knowledge equivalent to that represented by Gray's Structural Botany.

Two laboratory periods each week throughout the Session, with such field days as may be arranged.

5. STRUCTURE OF WOODS.—This course is designed to meet the special requirements of students proceeding to the study of forestry. It will deal with the practical study of the prin-

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* Students taking Honours in Geology and Mineralogy will also take Botany, 3 (a) during the first half of the Session.

cipal woods employed for structural purposes, their structure, modification under conditions of decay, mechanical stress, detemination of age, methods of preparing material for microscopical examination.

One lecture and two laboratory periods each week (Half Course).

Text-book:—Penhallow's North American Gymnosperms.

6. PHYSIOLOGY AND ECOLOGY.—A course of readings and lectures with laboratory work, forming an ordinary subject for Forestry students and an Honours subject for Arts students.

One lecture and two laboratory periods throughout the Session. (Half course.)

HONOUR COURSES.

(*In Biology.*)

Third and Fourth Years.

For work in Zoology, see page 173.

7. Candidates for Honours in the Third Year will, in addition to the ordinary work in Botany of that Year, read Darvin's Variation of Animals and Plants under Domestication during the first half of the session. These readings will be carried out and the examination will be held jointly with the Zoological Department. During the second half of the session, the work will consist of De Vries' Species and Varieties. Themes upon selected topics will be required.

Candidates for Honours in the Fourth Year will, in addition to the ordinary work in Botany, take Course 6.

Students taking Honours in Biology will be required to take Chemistry in the Second Year, unless exempted by the Faculty on recommendation of the Professors of Biology.

(*For Honour Courses in Biology, see also page* 105.)

The Biological Stations of Canada, now operating on the Pacific Coast, Lake Huron and the Atlantic Coast, offer exceptional opportunities for the prosecution of research.

Students proceeding to the higher degrees in Biology will be eligible to occupy tables for investigation of an advanced character.

B.Sc. Course (Ordinary).

Third Year.

8. Students proceeding to the Degree of B.Sc. will be required to take the ordinary course of the Third Year Arts, (2) and, if specializing in Botany, also the Honour Course in this subject for that Year.

Two lectures and two laboratory periods each week throughout the Session.

Fourth Year.

During the Fourth Year, each student proceeding to the Degree of B.Sc. will be required to pursue special studies in extension of the work of the Fourth Year Arts (3), in accordance with such plan as may be adopted by the B.Sc. Committee at the time of his entrance upon that Year.

Courses Leading to Forestry.

Students who contemplate the adoption of Forestry as a profession, are advised to take the following course of study as a preparation for graduate work at a Forestry School. This course is framed with special reference to those who may be proceeding to the Degree of B.Sc.

In the First and Second Years, Physics (1) and Elementary Biology will be regarded as essential elements of the course.

Third Year.

Special Morphology of Plants (2).
Honour readings with Colloquia (Botany 7).
Zoology (2).
Geology (1).
English Composition (4C).
Economics (2).

Fourth Year.

Special Morphology of Plants (3).
Systematic Botany (4).
Physiology and Ecology (6).
Structure of Woods (5).
Entomology (first half of the Session).
Mammals and Fishes (3B, second half of the Session).

DEPARTMENT OF ZOOLOGY.

PROFESSOR:—ARTHUR WILLEY, D.Sc., F.R.S.
ASSOCIATE PROFESSOR OF HISTOLOGY AND LECTURER IN EMBRYOLOGY:—J. C. SIMPSON, B.Sc.
LECTURER:—J. STAFFORD, M.A., PH.D.
DEMONSTRATOR:— ————————

Second Year.

1A. ANIMAL BIOLOGY.

This course consists of a careful study of the laws of Biology as illustrated by a selected series of types. Special stress is laid on vertebrate structure and function, to the study of which most of the time is devoted. The types dealt with are Amœba, Paramœcium, a Flagellate, Hydra, Lumbricus, Amphioxus, Scyllium, Rana.

Two lectures and two demonstrations a week up till Christmas.

This course, taken along with the corresponding course in Botany, constitutes the course in general Biology.

1B. ANIMAL PHYSIOLOGY.

This course includes a study of the principal organic compounds found in the animal body and also of the principal functional activities of Vertebrates.

Two lectures and one demonstration a week from Christmas till Easter.

This course is to be taken by those students who intend to qualify for the Ontario Specialists' Certificate in Biology. It is recommended to all those who intend to proceed to Honours in Biology.

Third or Fourth Year.

2. Invertebrate Zoology.

This course consists of a general review of all the classes of Invertebrate animals, and of the Tunicata and other Protochordata. Special attention is given to parasitic forms and those responsible for the production of disease.

Two lectures and two demonstrations a week throughout the Session.

Continuation Courses.

Fourth Year.

3A. Vertebrate Anatomy and Histology.

This course includes a systematic study of the anatomy of the principal types of vertebrate animals, followed by a study of the histology of vertebrate tissues.

Two lectures and two demonstrations a week throughout the Session.

3B. Comparative Embryology.

This course consists of a study of the typical form of development and of its principal modifications in every class in the animal kingdom.

Two lectures and two demonstrations a week throughout the Session.

Students desiring to continue the study of Zoology during the Fourth Year may take either of the above courses. Students taking the seven year course in Arts and Medicine leading to the Degrees of B.A. and M.D., or B.Sc. and M.D., may take 2, 3A or 3B as a Third Year subject.

Honour Courses.

Third Year.

Students proceeding to Honours in Biology shall take, during the first half of the Third Year, in addition to course 2, a series of special readings under the supervision of the Professor, with weekly colloquia. The subject for the coming session will be Darwin's Variation of Animals and Plants under Domestication. This work will be studied both in the

Zoological and Botanical Departments, and the examination thereon will be held by the two Departments acting jointly. During the second half of the Session they shall pursue the study of Mammalian Anatomy as illustrated by the Rabbit.

One lecture and one demonstration per week.

This course is required in addition to 1A in order to enable students to obtain exemption from the Biology examination in the First Year Medicine. As the subject of Embryology has been united with that of Animal Biology by the Faculty of Medicine and a joint examination in the two subjects instituted, students in Arts desiring to obtain complete exemption from the Biological examination in the First Year in Medicine must either take 3B in their Fourth Year or the latter portion of the medical course in Animal Biology. During the Fourth Year students proceeding to Honours shall take courses 3A and 3B. For students proceeding to the Degrees of B.A. and M.D. in eight years, the Anatomy of First Year Medicine may be substituted for 3A.

(*For Honour Courses in Biology, see also page* 105).

The Biological Stations of Canada, now operating on the Pacific Coast, Lake Huron and the Atlantic Coast, offer exceptional opportunities for the prosecution of research. Students proceeding to the higher degrees in Biology will be eligible to occupy tables for investigation of an advanced character.

B.Sc. Course.

Students proceeding to the degree of B.Sc. will be required to take 2.

If they intend to specialize in Zoology in the Fourth Year, they shall, in addition, take the Honours work prescribed for the Third Year. In the Fourth Year they shall take courses 3A and 3B and, in addition, such extra reading and laboratory work as may be prescribed by the Faculty.

A special fee of $2.50 is charged against the caution money of each student attending the Zoological laboratory, in order to cover the cost of instruments and laboratory note-book,

which are supplied to him and become his property. A student attending the laboratory for a second time is not called on to pay this fee.

METEOROLOGY.

SUPERINTENDENT OF OBSERVATORY:—C. H. McLEOD, MA.E.

Instruction in meteorological observations will be given in the Observatory at hours to suit the convenience of the senior students.

Certificates will be granted to those students who pass a satisfactory examination on the construction and use of meteorological instruments and on the general facts of Meteorology.

THE DIPLOMA OF COMMERCE.

The University offers a systematic course of study extending over two years, and intended as a preparation for entrance into business life. The course is not merely designed to impart instruction of a purely technical character. It is believed that a sound training in the essential branches of a liberal education affords the best equipment for the conduct of practical affairs. The object of the course is, therefore, rather to develop capacity than to impart special information. While adhering, however, to this general plan, the work of the commercial department is differentiated from that of the curriculum in Arts. Special stress is laid upon those subjects a knowledge of which is a necessity for business men, and the character of the instruction and the class methods adopted are specially suited for the end in view. The greatest emphasis is laid upon teaching the student to speak and write with fluency and accuracy, and to be able to apply a ready intelligence to practical business problems. The course is open to both men and women. On the successful completion of the course, a Diploma is awarded.

It is entirely within the aim of the University, in establishing this department, that the students therein should seek practical employment during the vacation period. Such employment, if of a suitable character, will form a useful complement to the work done in the University. It is confidently expected that the course will be viewed with such favor by the business community as to render the students particularly eligible applicants for positions in business houses.

ADMISSION.

(For entrance requirements, see page 21).

COURSE FOR THE DIPLOMA.

First Year.

1. English.
2. History.
3. Mathematics (including Commercial Arithmetic.)
4. French.
5. Physical Geography; Commercial Geography.
6. Physics.

The work of the First Year is continued throughout the Summer Session (May 1st to June 12th), in the case of those subjects in which instruction is ordinarily provided. The work so done forms an integral part of the course for this Year.

Second Year.

1. English and History.
2. French (including Commercial French.)
3. Organization of Commerce and Industry.
4. Commercial Law.
5. Chemistry.
6. Accountancy.
7. Mathematics. (Algebra of the Second Year Arts—three hours weekly during the second half of the Session.)

ENGLISH.—The work done in this subject will be of an essentially practical character. The students will be given a constant drill in essay writing, the making of abstracts, *précis* and reports, and in such exercises as will train them to a ready use of English. Letter writing and business correspondence will be made important features of the work. A systematic training will be offered in reading and public speaking and in the oral presentation of reports. In addition to this a certain amount of formal instruction will be given in the elements of English Literature.

HISTORY. — The work here will consist of a survey of general European history, to serve as a background for an understanding of the history of common and economic history. See Courses 13 and 14 under the History Department.

COMMERCIAL LAW.—By special arrangement with the Dean of the Faculty of Law, students will have the opportunity of studying, in this connection, an outline of the operation of Canadian government, federal, provincial and municipal. They will also have their attention directed to questions of everyday law, especially such as are likely to be met with in business practice.

FRENCH.—The course in French aims especially at imparting facility in the spoken and written language. During the Second Year, in addition to four hours a week of oral instruction, a fifth hour will be devoted to the teaching of Commercial French, and the forms to be used in correspondence and accounts.

MATHEMATICS.—The course in Mathematics will consist of Commercial Arithmetic and Algebra; the Arithmetic and Algebra being taught with special reference to their practical application.

SCIENCE. — The course in Science includes Physics and Physical Geography in the First Year, with Chemistry in the Second. The subjects will be presented in such a way that the students may not merely profit by the mental training afforded by the study of Natural Science, but may secure a general acquaintance with the scientific principles underlying modern industrial progress.

ORGANIZATION OF COMMERCE AND INDUSTRY.—Course given by the Department of Economics.

PHYSICAL AND COMMERCIAL GEOGRAPHY.—For description of courses in these subjects, see page 163.

ACCOUNTANCY. — In the Second Year formal instruction will be given in the principles and practice of accounting. The object will be to provide students with a sound knowledge of the science of accounting rather than to train them in the craft of keeping books.

FEES.

The fees are the same as in the Faculty of Arts. See page 72.

DEPARTMENT OF MUSIC.

LOCAL EXAMINATIONS.

Public Local Examinations are now held yearly at various centres throughout the Dominion by examiners sent out by the University.

These Examinations may be looked upon as preparatory to the Examinations for Diplomas and Degrees in Music granted by the University. There are in most of the subjects five grades, and certificates gained in the higher grades will exempt the candidate from certain portions of the Examinations for a Diploma or Degree.

DIPLOMA OF LICENTIATE IN MUSIC.

Candidates for this diploma may elect to be examined either in:—

Theoretical subjects and composition.....(Class I)
Practical subjects as performers.....(Class II)
Both theory and practice as teachers.....(Class III)

The candidate must pass three examinations.

First Examination:—

(a) Rudiments of music, including sight reading and ear tests.
(b) Harmony in four parts up to, and including, dominant 9th (a practical test will be substituted for performers).
(c) Counterpoint in two parts (practical test substituted for performers).
(d) Chief subject of study.

The possession of a Grade I certificate of the Local Theoretical Examinations will exempt candidates in Class I from this examination. In Class II, exemption may be claimed if the candidate has passed Grade I (Practical) and Grade II or Grade III (Theoretical) of the Local Examinations.

In Class III, candidates must hold Grade I (Theoretical) and Grade II (Practical) certificates in order to claim exemption.

In the second and third examinations, between which a year must elapse, the requirements for Classes I and III are, on general lines, similar to those for the First and Second Mus. Bac. Examinations respectively. In the case of Class II, practical tests are substituted for many of the theoretical tests. Candidates in Class III will, in the Final Examination, have to pass in "The Art of Teaching Music," which will be partly *viva voce* and partly paper work.

In both the Licentiate and Mus. Bac. Examinations, considerable latitude is allowed in the choice of a second practical study. Total exemption from examination in it will be allowed if the candidate possesses recent certificates gained in the higher grades of the Local Examinations in that subject.

Those holding the diploma of L. Mus., can at any time during the five years immediately following their passing that examination, enter for the Mus. Bac. final examination, but they must pass the Matriculation examination.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF MUSIC

Candidates for the Degree must have passed the following examinations:—

1. The Matriculation Examination. (See page 27.)
2. The First Examination in Music, at the end of the First Year.
3. The Second Examination in Music, at the end of the Second Year.
4. The Final Examination.

The particulars of the work for each of the above examinations are as follows:—

First Examination in Music.

(a) Advanced Rudiments.
(b) Harmony in 3 and 4 parts.
(c) Counterpoint up to 3 parts.
(d) Form and analysis. Questions will be given on accent, cadence, metre, rhythm, phrasing, etc., and on form,

shown in the work of the early classicists (Scarlatti, Bach, Mozart and Haydn).

(e) General outlines of Musical History.

(f) Chief and Second Practical Study (or instead of one of these the composition of a song (or songs) or a miniature suite for Piano (or Violin and Piano or any other combination).

Second Examination in Music:

(a) Harmony in not more than 4 parts.

(b) Counterpoint in not more than 4 parts.

(c) Canon in 2 parts and Fugal Exposition up to 4 parts.

(d) History of Music from the 16th century to the present day, with some critical knowledge of a few compositions, either studied during the year or prescribed beforehand.

(e) Form and Analysis.

(f) Elementary knowledge of Acoustics, or Physiology of Voice.

(g) Chief and Second Practical Study or, instead of one of these, the composition of:—(1) A movement in Sonata form for Pianoforte (or Piano and Violin, or any other combination), or (2) Chorus with independent accompaniment, or (3) Suite for Strings.

Final Examination in Music:

(a) Harmony up to 5 parts.

(b) Counterpoint up to 5 parts.

(c) Double counterpart in 8ve, 10th and 12th.

(d) Canon and Fugue in 4 parts.

(e) History of Music from the earliest to the present time.

(f) Form and Analysis. A knowledge will be required of such works as the following:—Bach's 48 Preludes and Fugues, Beethoven's Sonatas, Schubert, Schumann and Brahms' Songs, Mendelssohn's Psalms and such Oratorios as Elijah and St. Paul. (The candidate should send in a list of works, in which he or she is prepared to be examined, a few weeks before the day of examination.)

(g) Instrumentation—a knowledge of the compass and capabilities of all instruments in the modern orchestra, and the scoring of a given passage in a given time, also the reading at sight of a short excerpt from an easy score of an early work of Mozart or Beethoven.

(h) Chief and Second practical study (or in lieu of both of these a composition can be sent in by the candidate containing 4-part chorus, a solo or duet, an unaccompanied quartette and a 4-part Fugue—the whole scored for stringed instruments with independent accompaniment.)

Graduates in Music of other Universities can be admitted to an 'ad eundem' degree in Music of this University on payment of the necessary fees.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MUSIC.

Bachelors of Music of McGill University, after the lapse of a period of three years from the time of taking the Degree of Bachelor of Music, may proceed to the Degree of Doctor of Music, the requirement for which is a composition in extended form, such as an oratorio, opera or cantata. This exercise must contain eight part writing and fugal treatment, and must be scored for a full orchestra, which original and unaided composition, if approved of, may be publicly performed by the candidate in the University or some other fit and proper place, at the discretion of the University. In addition, an examination in the higher forms of composition shall be necessary, together with a critical knowledge of the full scores of certain prescribed works.

Further particulars with regard to Degrees and Diplomas in Music, as well as those relating to Local Examinations, not included in the above, will be found in the special Music Syllabus obtainable on application to the secretary of the McGill University Conservatorium of Music. All the above examinations will be held in Montreal and other centres in the Dominion of Canada where McGill University has local representatives, provided a sufficient number of candidates apply.

INSTRUCTION IN MILITARY SUBJECTS.

At a number of the leading universities in Great Britain, a scheme for supplying officers to the British Army nas been in operation for several years.

Three years ago, the Department of Militia at Ottawa intimated a desire that our Canadian universities should follow the example of those in Great Britain and Ireland and take some part in the education of gentlemen desirous of entering the British army and the Permanent Force in Canada. After due consideration, a scheme was drawn up which received the approval not only of the Canadian Militia Department, but also of the British War Office, and in accordance with this scheme instruction has been given at McGill during the last three sessions. The full course will be given again in 1910-1911, under improved conditions, particulars of which can be obtained at the Registrar's Office.

General Qualifications of Candidates.

A candidate for a commission,

(a) Must be between the ages of 20 and 25 (for Indian army, 24) on the 1st of April, or on the 1st of October immediately preceding the half-yearly nomination for which he presents himself.

(b) Must be unmarried.

(c) Must be, in the opinion of the Army Council, in all respects suitable to hold a commission in the regular forces.

Academic Qualifications.

A candidate must:—

(a) Reside for three academic years at the university.

(b) Qualify for a degree in the Faculty of Arts, Applied Science, or Law.

(c) Produce a certificate of good character from the Principal.

A candidate who has graduated with first class honours, or with other distinctions recognized by the Army Council as equivalent thereto, will, if nominated, be entitled to count one year of seniority on obtaining his commission.

A candidate for the Royal Artillery must satisfy the Nomination Board that he has attained the standard of mathematics required by the Army Council.

Military Qualifications.

(a) A candidate must attend a course of lectures in military subjects and qualify at a subsequent examination.

(b) Must be attached for six consecutive weeks in each of two consecutive years, or 12 consecutive weeks in one year, to a unit of the Permanent Force. Before such attachment he will be required to have been instructed in squad drill, in accordance with infantry training, under arrangements made by the university to which he belongs.

(c) Must be passed by a medical board as physically fit.

(d) Must be nominated by a board appointed for that purpose.

Course of Lectures.

The lectures in preparation for the examination in military subjects are as follows:—

SUBJECT	Number of Lectures.	Marks at Examination.
Group A.		
(1) Military History and Strategy	28	1000
(2) Military Tactics	28	1500
Group B.		
(1) Military Engineering	20	1000
(2) Military Topography	20	1000
Group C.		
(1) Military Law	12	250
(2) Military Administration	12	250

In the case of students in Applied Science, in the course of Civil Engineering and Surveying, the number of lectures in Military Engineering and Topography may be reduced by one-third. Students in this Faculty who take these subjects will be given credit for the marks taken in them at the College Examination, when their general standing for the year is being determined.

An examination is held twice a year (commencing on the last Tuesday in March and on the second Tuesday in October), Candidates may take all three Groups at one examination or may divide them into two, taking Groups "A" and "C," or "B" and "C" at one time and the remaining Group at another.

Candidates are recommended to take six weeks of their training with the Permanent Forces before commencing to attend lectures, as they will find it a considerable help in understanding the various subjects. This is, however, by no means indispensable, and the whole course of lectures can be taken, if desired, before the candidate is attached to a military unit.

All details as to the procedure and conditions of attachment to a regular unit, the physical requirements and medical examination, and other matters not specified herein, will be found in the War Office Regulations, a copy of which will be issued to each candidate on registration.

SPECIAL INFORMATION REGARDING THE FACULTY OF APPLIED SCIENCE

THE SESSION 1910-11 WILL OPEN ON SATURDAY, OCTOBER 1ST, 1910. STUDENTS ENTERING THE UNIVERSITY WILL REGISTER AT THE REGISTRAR'S OFFICE ON THE 28TH, 29TH AND 30TH OF SEPTEMBER. STUDENTS PREVIOUSLY ENROLLED ARE REQUESTED TO REGISTER IN ADVANCE BY MAIL. PROPER FORMS WILL BE FORWARDED DURING THE SUMMER. THOSE WHO DO NOT WILL REGISTER IN THE REGISTRAR'S OFFICE ON OCTOBER 1ST, ON WHICH DATE ALL STUDENTS WILL ALSO REGISTER FOR PARTICULAR COURSES IN THE ENGINEERING BUILDING. LECTURES WILL COMMENCE ON MONDAY, OCTOBER 3RD, 1910. FIELD WORK IN SURVEYING WILL COMMENCE ON MONDAY, SEPTEMBER, 5TH, 1910.

FACULTY COMMITTEES.

ON ADMISSION OF STUDENTS FROM OTHER UNIVERSITIES.—The Dean, Professor Durley and Professor Murray.

ON REGISTRATION, STANDING AND PROMOTION.—Professors McLeod, Porter, Murray and Keay.

ON EXAMINATIONS AND TIME TABLE.—Professors Porter, McLeod, Murray and MacKay.

For complete registration regulations see page 43.

Particulars regarding the following points will be found by referring to the pages mentioned:—

	Page
Admission from other Universities	42
Admission of Partial Students	14
Attendance	43
Exhibitions and Scholarships	62
Fees	74
Matriculation	23
Medals and Prizes	69

DEGREES AND EXAMINATIONS.

(1) *Degrees.*

The Degrees conferred by the University upon such undergraduates of the Faculty as fulfil the conditions and pass the examinations hereinafter stated are, "Bachelor of Architecture (B.Arch.), and Bachelor of Science" (B.Sc.), mention being made in the Diploma of the particular course of study pursued.

Students who take the Bachelor of Science Degree in one of the courses provided by the Faculty may graduate in any of the remaining courses by attending one or more subsequent sessions.

Particulars regarding the combined course in Arts and Applied Science leading to the Degrees of B.A. and B.Sc. (Applied Science) in six years, are given on page 111.

By a resolution of the Institution of Civil Engineers (England) the holders of the Degree of B.Sc., in the courses of civil, electrical, mechanical, and mining engineering, who are desirous of becoming Associate Members of the Institution are exempted from the examination prescribed for admission.

(2) *Examinations.*

1. Sessional examinations are held in all subjects. In addition, there are Christmas examinations in certain subjects, and class examinations are held from time to time, at the option of the Professor.

2. Credit may be given in the sessional standing for class examinations held during the session, and also for the Christmas examinations.

3. Students who have failed in one or more subjects of the curriculum (pp. 192 to 220) shall be required to make good their standing by passing:—

(1) The supplemental examinations, (for students attending the Survey School, August 31st to September 3rd approximately; for all others, September 26th to 29th approximately),* *or*
(2) The sessional examinations, *or*
(3) The examinations of the summer courses when such examinations are equivalent to the sessional examinations,† *or*
(4) Special examinations, which shall be given only under exceptional circumstances and by authority of the Faculty.

4. No student will be allowed to take any course until he has passed the examinations in the necessary pre-requisite subjects, for particulars regarding which see appendix.

5. Partial students are entitled to examinations in the subjects which they have taken as partial students, but not to supplementals, nor to examinations in other subjects.

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* Students will not be permitted to come up for both of these examinations.

† These examinations are open only to students who have attended the summer courses and who have paid the regular fees therefor.

ENGINEERING SOCIETIES.

1. The headquarters of the Canadian Society of Civil Engineers are located in Montreal. Students in all departments of engineering are strongly recommended to become student members of the Society, which they can do on payment of a fee of $2.00. They are then entitled to the two volumes of "Transactions," which are annually published, and to the use of the Society's rooms on Dorchester Street. They also have opportunities of meeting the prominent engineers of the country and of being present at the fortnightly sessions, at which papers are read on current engineering subjects and works of construction.

Students are invited to compete for the prizes which are offered by the Society (see p. 64.)

2. Students in Mining and Metallurgy are strongly recommended to become members of the McGill Mining Society, which, although a student body (see p. 268), is affiliated with the Canadian Mining Institute, the headquarters of which are in Montreal. Members of this Society receive the Transactions of the Institute without extra expense, and are entitled to attend all meetings and to compete for the prizes offered (see p. 69).

COURSES OF INSTRUCTION.

The instruction in this Faculty is designed to afford a thorough training of a practical as well as a theoretical nature, in the following branches of Applied Science:—

I.—Architecture.
II.—Chemistry.
III.—Chemical Engineering.
IV.—Civil Engineering and Surveying.
V.—Electrical Engineering
VI.—Mechanical Engineering.
VII.—Metallurgical Engineering.
VIII.—Metallurgy.
IX.—Mining Engineering.
X.—Railways.

The regular work of each session in Applied Science will end about the 1st of May, at the close of the sessional

examinations. The summer work will commence as soon as practicable thereafter, and will be continued for six weeks (see Reg. 2, below).

The Faculty advises students to attend the Military Courses now offered by the University, (see p. 183), and has assigned marks to these subjects on the same basis as that adopted for the obligatory subjects of the course. The marks obtained in the examinations on the Military Course, like those in other optional subjects, will be taken into consideration in determining the standing of the student. Students following these courses who desire to obtain credit for them, must in any one year take either (1) Groups A. and C., or (2) Groups B. and C.

SUMMER WORK.

1. All undergraduates entering the Second Year (excepting those taking the Practical Chemistry Course), students in the Civil Engineering, Mining Engineering and Transportation (Railways) Courses entering the Third Year, and students in the Civil Engineering Course entering the Fourth Year, are required to be in attendance at the Surveying School on the 5th of September, when the field work in Surveying and Geodesy will commence. (See page 273.)

2. Undergraduates in the Mechanical, Electrical and Metallurgical Engineering Courses are required to attend a summer session of about six weeks between the Second and Third Years. The work to be done in the first two of these courses is as follows:—Mechanical Drawing (Machine Design and Machine Drawing), 10 hours per week: Physics and Physical Laboratory Work, 11 hours per week; Shopwork (Smith shop and Foundry), 11 hours per week. Undergraduates in Metallurgical Engineering will take courses in qualitative and quantitative chemical analysis.

3. Undergraduates in the Mining and Metallurgical Courses are required to attend the Summer School in Mining, held be-

tween the Third and Fourth Years (four to six weeks of field-work). This school is held in May and June. (See page 268.)

4. During the summer vacation following the close of each session, all students entering the Third and Fourth Years are advised to prepare an essay on a subject specified by the Faculty, or make a report on some practical work in course of construction. The marks given for these essays are added to the results of the sessional examinations, but no credit will be given for any essay handed in later than ten days after the opening of the Session.

The summer essays when handed in shall be considered as the property of the Faculty and shall be retained by the department in which the student is taking his course.

It is recommended that the essays be written on the same paper as that which is required in the case of the theses submitted for higher Degrees in the Graduate School. (See p. 373).

Students who do not prepare such an essay or report must read Shadwell's "Industrial Efficiency," (Longmans, Green & Co., 1909). An examination in this reading will be held at the opening of the session, for which marks will be given, but the marks assigned will be relatively lower than those given for an essay.

During the summer vacation following the close of the First Year all students entering the Second Year will be required to read certain English classics and to pass an examination on the same at the opening of the session. The books assigned for the vacation of 1910, are as follows: Southey, "Life of Nelson;" Lamb, "The Essays of Elia;" Kingsley, "Hereward the Wake;" Dickens, "David Copperfield;" and George Eliot, "Adam Bede." (Everyman's Library).

GENERAL OUTLINE OF COURSES.

The curriculum, as laid down in the following pages, may be changed from time to time as deemed advisable by the Faculty. The work prescribed for the first two years is the

same in all courses, except in Practical Chemistry and in that leading to the Degree of Bachelor of Architecture.

The subjects of instruction in these years for all courses, except those above-named, and the number of hours per week devoted to each, are as follows:—

FIRST YEAR.

SUBJECT	Subject Number	Lectures per week.		Laboratory etc. periods* per week.		For details see page
		First Term	Second Term	First Term	Second Term	
Algebra	192	5	5	..	..	250
Descriptive Geometry	341	..	..	2	2	241
English	131	1	1	..	..	245
Freehand Drawing	342, 343	..	..	1	1	245
Geometry	191	3	..	..	..	249
Mech. Drawing	211	..	..	1	1	251
Mechanics	194	2	2	..	..	250
Physics	311	2	2	..	..	270
Physics. Lab	312	..	..	1	1	270
Shopwork	212, 213, 214	..	..	2	2	252
Trigonometry	193	..	3	..	..	250

* A laboratory period is three hours.

All students of the First Year, except those in the course of Architecture, who at the close of the first term have failed in any four of the following five subjects, which form part of the work of the first term, viz., Dynamics, Geometry, Algebra, Physics, Descriptive Geometry, will be required to withdraw from the University.

In the case of students in the course of Architecture the same rule applies, the five subjects, however, being: Descriptive Geometry, Mathematics, Physics, History, and Architectural Drawing.

SECOND YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Anal. Geometry.....	197	3	..	..	..	250
Calculus	198	3	3	..	..	250
General Chemistry....	51	3	3	..	..	231
General Chemistry Lab	52	..	..	1	1	231
Graphical Statics.....	82	..	..	..	1	234
Mapping.....	348	..	..	1	1	277
Materials of Construction.....	81	1	1	..	..	234
Mechanical Drawing ..	219	..	..	1	1	253
Mechanics.....	83	..	3	..	..	235
Mech. of Machines....	218	3	3	..	..	253
Physics.....	315	2	2	..	..	271
Physics Lab.....	316	..	..	1	1	271
Shopwork.....	220	..	..	1	1	253
Surveying	346	2	2	..	..	273
Surveying Field Work.	347	..	..	..	..	273

*A laboratory period is three hours.

Note—Surveying Field Work, 4 weeks, beginning September 5th, 1910.

Note:—For Summer School Work at end of Second Year see Third Year Tables.

I. Architecture.

For fuller information see the announcement of the School of Architecture for 1910.

The curriculum required for the Degree of Bachelor of Architecture extends over four years, and besides work in the School of Architecture proper, teaching is provided by all the Faculties of the University,—Arts, Applied Science, Law and Medicine. The work in the three classes in design A, B and C, is independent of the work in the four years, *and good standing in design class C must be obtained prior to receiving the Degree.*

While the design classes A, B and C are intended to run concurrently with the Second, Third and Fourth Year work respectively, a student in any Year, if competent, may be admitted to the higher classes in this subject.

First Year.—The work of this year includes:—English,* French,† History,† Mathematics,† Physics,* and Physics Laboratory,* Descriptive Geometry,* Architectural Drawing, Freehand Drawing and Modelling.

The object of this curriculum is to impart such general culture, scientific knowledge and skill of hand as will prepare the student to profit by the work of the succeeding years, in his more professional studies under the heads of:

(*a*) Design.
(*b*) Æsthetic.
(*c*) Archæology.
(*d*) Science.
(*e*) Construction.
(*f*) Professional Practice.
(*g*) Drawing.

Second Year.—Mathematics† and History† are continued in the Second Year. A theoretic course on the Elements of Architecture accompanies Class A in design.

The History of Architecture from early times down to the Fall of the Roman Empire is dealt with in a lecture course, while the study of Classic Architecture is taken up in the Drafting Room. The practical study of Ornament and Decoration is begun in this Year. In Surveying* and Mapping* the work of the summer field school is brought to a conclusion. Building Construction in all trades is dealt with in lectures, and Details of Construction are prepared in the Drafting Room. Modelling is continued.

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* Applied Science.
† Arts.

Third Year.—The Theory of Design is the lecture course which accompanies Class B in design. The Historical Course deals with the period from the Fall of the Roman Empire to the Renaissance, and, as before, involves work in the Drafting Room. The study of Ornament and Decoration is continued. An advanced course in Descriptive Geometry* (perspective, etc.), is taken.

Special courses in Hygiene‡ and Ventilation and Heating* are provided by the Departments concerned. Constructions involving calculation are dealt with in the Structural Engineering Course. Modelling is continued.

Fourth Year.—The Theory of Planning and Modern Architecture go hand in hand with the design work in Class C The Historical Course deals with Architecture from the Fifteenth to the Nineteenth Centuries.

Courses in Law§ and in Professional Practice deal with the business aspects of practical work. The course in Structural Engineering deals with the design of steel frames and trusses.

An essay on a historical or theoretical subject is required in each term for all years.

In all courses studio work goes hand in hand with oral teaching, with a view to the practical application of the theory, while at the same time affording opportunity for the acquisition of power in draughtsmanship and practice in Design, *this latter being the chief aim of the course.*

The subjects required for matriculation are named on page 23.

The lectures given in the Third and Fourth Years are, as far as possible, in the morning, to enable partial students working in offices to avail themselves of the instruction. Such lectures will be found of use to those studying for the R.I.B.A. and the P.Q.A.A. examinations.

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* Applied Science.
‡ Medical Faculty.
§ Faculty of Law.

The subjects of instruction and the number of hours per week devoted to each are as follows.

FIRST YEAR	Lectures	Periods	See Page	SECOND YEAR	Lectures	Periods	See Page
				Design		2	221
				Elements of Architecture	1		222
French	4		130	Building Construction	1		227
English	1		245	Building Details		2	227
Freehand Drawing		1	230	History of Architecture	2		224
Architectural Drawing		1	229	Architectural Drawing		1	229
Geometrical Drawing	1		241	Surveying	2		273
				Mapping		1	
Descriptive Geometry		2	241				
General History	2		148	General History	1		149
Mathematics	4		155	Mathematics	3		155
Physics	2		270	Ornament	1		223
Physics Lab		1	270	Decoration		1	223
Modelling		1	230	Modelling		1	230
	14	18			12	24	
TOTAL HOURS	32				36		

THIRD YEAR	Lectures	Periods	See Page	FOURTH YEAR	Lectures	Periods	See Page
Design		4	222	Design		6	222
Theory of Design	1		222	Theory of Planning	1		222
Structural Engineering	2		228	Graphical Statics	1		228
				Structural Design		2	228
Structural Detail		1	228				
History of Architecture	2		225	History of Architecture	2		225
Architectural Drawing		1	230	Architectural Drawing		1	230
Descriptive Geom. Adv.	1*		241	Law	1		249
				Architectural Practice	2		229
Perspective		1*					
Hygiene	2*		227	Modern Architecture	1		226
Heating and Ventilation	1*	1*	227				
Ornament	1		223				
Decoration		1	223				
Modelling		1	230				
	8	27			8	27	
TOTAL HOURS	35				35		

NOTE.—Allocation of time subject to variation by the Faculty. Lectures one hour; periods in Draughting Room, etc., three hours.
*One term only.

II. Chemistry.

The course in Chemistry is arranged to give the student in the first two years a thorough knowledge of the fundamental principles of Chemistry and Physics, with sufficient Mathematics to enable him to understand the theoretical parts of these subjects.

In the two subsequent years Chemistry, analytical, organic, and physical, is taught both in its purely scientific aspects and in its relations to the various departments of commercial work. Special facilities are afforded for the prosecution of graduate research work in all the branches of Chemistry.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST YEAR.

As in other Engineering Courses. For details, see page 192.

SECOND YEAR.

SUBJECT.	Subject Number	Lectures per week		Laboratory, etc., periods* per week.		For details see page
		First Term	Second Term	First Term	Second Term	
Analytic Geometry.....	197	3	..	..	..	250
Calculus.....	198	3	3	..	..	250
Chemistry Lab.....	53	..	..	5	..	231
General Chemistry....	51	3	3	..	..	231
Inorganic Qualitative Analysis.....	54	..	1	..	..	232
Inorganic Qualitative Analysis Lab.....	55	..	..	..	5	235
Mechanics.	83	..	3	..		
Physics.....	315	2	2	..	..	271
Physics Lab.....	316			1	1	271

*A laboratory period is three hours.

THIRD YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Engineering Economics.	171	..	2	..	..	248
Geology, General.....	141	2	2	⅓	⅓	246
Inorganic Quant. Analysis.....	61	1	..	..	..	232
Inorganic Quant. Anal. Lab.....	62	..	..	6	6	232
Gen. Elementary Metallurgy.....	261	2	..	..	..	260
Mineralogy.....	142	2	2	..	..	246
Mineralogy, Determinative.....	143	..	..	..	2	247
Organic Chemistry	56	3	..	..	..	232
Organic Chemistry Lab.	57	..	..	2	..	232
Physical Chemistry....	58	..	..	..	..	232

*A laboratory period is three hours.

FOURTH YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Applied Electro-Chemistry & Lab.....	70	2	..	1	..	234
Crystallography (alt)...	151	2	..	1	..	248
Engineering Law.....	175	1	1	..	..	249
Industrial Chemistry ..	69	2	2	..	..	233
Physical Chemistry & Lab.....	67	2	2	2	1	233
Fire Assay (alt.).....	263	..	..	2	..	260
Inorganic Quant. Analysis & Lab.....	68	1	1	4	4	233
Ore Deposits (alt)	148	..	3	..	..	247
Organic Chemistry (alt)	66	2	2	6	5	233

*A laboratory period is three hours

III. Chemical Engineering.

The aim of this course is to prepare the student for the duties of managing engineer in a chemical manufactory. As such he must not only be conversant with the chemical processes involved, but he may also be required to design and oversee the construction of new buildings and plant and to direct the installation and use of machinery. Accordingly the course of study seeks to combine a considerable amount of engineering with the maximum of chemical training which can be attained without overpressure during the four years of the curriculum.

During the first two years the course is identical with that in the other branches of engineering, but between the Second and Third Years students must attend a summer session of about six weeks in the chemical laboratories.

In the Third Year specialisation commences, the time being about equally divided between chemical and engineering studies, and in the vacation between the Third and Fourth Years all students must give at least six weeks to work in some chemical industry or to equivalent laboratory work satisfactory to the Professor of Chemistry.

In the Fourth Year the engineering studies are completed and the chemical studies which predominate are arranged in several alternative courses to meet the requirements of the students who cannot possibly study more than a few of the very varied chemical industries. These alternative courses fall broadly under one or other of two headings:—(*a*) inorganic and electrochemical, (*b*) organic. Should a student desire to prepare for an industry which requires more engineering knowledge than is provided in the regular course he may substitute additional engineering subjects for some of the chemical work. Details will be arranged on application to the Faculty through the Professor of Chemistry.

While every effort will be made to supply detailed information as to methods and plant of many of the important industries, and to provide facilities for experimentally carrying out the processes involved, the main aim will be devoted to

the study of the principles which underlie economical production.

The subjects of instruction and the amount of time devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 192 and 193.

THIRD YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Engineering Economics	171	..	2	..	..	248
General Elementary Metallurgy	261	2	..	..	..	260
Inorganic. Quant. Analysis	61	1	..	..	..	232
Inorganic Quant. Analysis Lab.	62	..	..	3	2	232
Mechanical Engineering	226	2	2	..	..	254
Mechanical Engineering Lab.	228	..	..	1	1	255
Mineral Analysis (alt)	65	..	..	2	3	233
Mineralogy (alt.)	142	2	2	..	..	246
Mineralogy, Determinative (alt.)	143	..	..	..	2	247
Ore Dressing (alt.)	292	..	2	..	..	265
Ore Dressing Lab. (alt.)	293	..	..	..	1	265
Organic Chemistry	56	3	..	..	..	232
Organic Chem. Lab.	57	..	..	2	..	232
Physical Chemistry	58	..	2	..	..	232
Strength of Materials	87	2	2	..	..	235
Strength of Materials Lab.	88	..	..	..	1	236
Structural Engineering	90	..	1	..	1	237
Summer School, Inorg-Qual. Anal.	54	..	..	..	..	231
Summer School, Inorganic Qual. Anal. Lab.	55	..	..	..	..	232

* A laboratory period is three hours.

FOURTH YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Elements of Electrical Engineering	111	2	2	..	..	244
Electrical Engineering Lab.	112	..	..	1	1	244
Engineering Law	175	1	1	..	..	249
Hydraulics	97	2	..	..	..	238
Industrial Chemistry	69	2	2(opt.)	..	..	233
Physical Chemistry and Lab.	67	2	1	2	1	233
Applied Electro-Chemistry and Lab. (alt.)	70	..	2	..	1	234
Electro-Metallurgy (alt.)	275	..	2	..	..	264
Electro-Metallurgy Lab. (alt.)	276	..	..	..	1	264
Fire Assay (alt.)	263	..	..	2	..	260
Geology, General (alt.)	141	2	2	⅓	⅓	246
Inorganic Quant. Anal. and Lab. (alt.)	68	1	1	6	6	233
Organic Chemisty and Lab. (alt.)	66	2	2	6	6	233

*A laboratory period is three hours.

IV. Civil Engineering.

The first two years of the undergraduate course in Civil Engineering are devoted mainly to preparatory work in Mathematics, Mechanics, Physics, Chemistry, Drawing, and Shopwork.

In the Third Year the strength of materials is a principal subject of study. The knowledge of this subject and of mechanics already gained, is applied to simple problems in the analysis of stresses in framed structures, and to the design of foundations, girders, columns, roof-trusses and the like. Courses in Surveying extend throughout the Second and Third Years with summer school sessions for fieldwork at the beginning of the Second, Third and Fourth Years. Courses in Railway and Municipal Engineering run through the Third and Fourth Years.

In the Fourth Year comprehensive courses are given in Geodesy, Hydraulics, Hydraulic Machinery and Theory of Structures. Much of the time in this year is, however, devoted to the details of Bridge Design, as it is thought that a thorough knowledge of this subject is a suitable preparation for work in the entire field of structural design.

Facilities are afforded to graduate students who wish to engage in research work in the strength and elasticity of materials and the like, or in more advanced work in structural design than can be overtaken in the undergraduate courses. A post-graduate course in Practical Astronomy and Geodesy will also be provided for any who may desire to specialize in Geodetic work.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 192 and 193.

THIRD YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Calculus (optional)	201	1	1	..	..	250
Descriptive Geometry	351	1	1	1	1	241
Eng. Economics	171	..	2	..	..	248
Foundations & Masonry	89	1	..	1	..	..
Geology, General	141	2	2	½	½	246
Mapping	355	..	..	2	2	274
Mechanical Eng	226	2	2	..	..	254
Mechanical Eng. Lab.	228	..	..	1	1	255
Mechanics	86	2	..	..	..	235
Municipal Engineering	91	1	1	..	..	239
Railway Engineering	372	2	2	..	..	276
Strength of Materials	87	2	2	..	..	235
Strength of Materials Lab	88	..	..	..	1	236
Structural Engineering	90	..	1	..	1	237
Surveying	353	2	2	..	..	273
Surveying Fieldwork	354	..	..	..	..	274

NOTE.—Surveying Fieldwork, 4 weeks, beginning September 5th, 1910.
* A laboratory period is three hours.

FOURTH YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week.		For details see page
		First Term	Second Term	First Term	Second Term	
Bridge Design	96	2	2	2	2	237
Elements of Electrical Engineering	111	2	2	..	..	244
Electrical Engineering Lab	112	..	..	1	1	244
Electric Railways	389	2	..	..	..	280
Geodesy	359	2	..	..	..	273
Geodetic Laboratory	360	..	..	1	..	274
Geodetic Fieldwork	361	..	..	..	..	274
Hydraulics	97	2	..	..	..	238
Hydraulic Laboratory	98	..	..	1	..	238
Hydraulic Machines	99	..	2	..	..	239
Municipal Engineering	100	..	2	..	..	240
Railway Engineering	388	..	2	..	..	280
Reinforced Concrete	95	..	..	..	2	237
Theory of Structures	94	3	3	1	1	237

NOTE.—Surveying Fieldwork, 4 weeks, beginning Sept. 5th, 1910.

*A laboratory period is three hours.

V. Electrical Engineering.

The First and Second Years of the undergraduate course of instruction in Electrical Engineering are devoted, mainly, to a preparation in Mathematics, Physics, Chemistry, Mechanics, Drawing, Shopwork and work in the physical and chemical Laboratories.

The electrical studies of the Third Year embrace a consideration of current flow, in circuits of different kinds, the principles of electro-magnetism, electrical measurements and the design and action of electrical machinery.

Students of the Third Year who intend to take up Electro-Chemistry and Electro-Metallurgy in the Fourth Year must take the Chemistry course and may omit Mechanics of Machines.

Students of the Third Year who intend to take Hydraulics (4th Year) must take Mechanics of Machines and may omit Chemistry.

The Fourth Year is devoted principaly to electrical work, and includes lectures and recitations on variable and alternating current phenomena, the principles of action and the design of alternating current and commutating machinery, electric lighting and systems of power distribution, central station design and operation, urban and inter-urban railways and power development.

In the Fourth Year a choice may be made between Electro-Chemistry and Electro-Metallurgy or Hydraulics, following the choice between Chemistry and Mechanics in the Third Year.

Each Fourth Year student is required to present a thesis giving the results of a suitable experimental investigation.

Occasional visits are made to electrical works and plants.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 192 and 193.

THIRD YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Applied Electro-Chemistry & Lab. (alt.)	63	1	1	⅔	⅔	234
Electrical Engineering.	113	2	2	..	..	242
Electrical Engineering Lab.	114	..	..	2	2	243
Calculus	201	1	1	..	..	250
Machine Design	225	2	2	..	..	254
Mechanical Drawing	232	..	..	1	1	256
Mechanical Engineer'g	226	2	2	..	..	254
Mech. Eng'r'g Lab.	228	..	..	1	1	255
Mechanics	86	2	..	..	..	235
Mechanics of Machines (Alt.)	224	2	2	⅓	⅓	254
Physics	320	1	1	..	..	271
Physics Lab	321	..	..	2	2	271
Strength of Materials	87	2	2	..	..	235
Strength of Mater. Lab.	88	..	..	..	1	236
Summer School Mech. Drawing	230	..	..	..	..	255
Summer School Shop-work	233, 234	..	..	..	..	256
Summer Sch. Physics.	317	..	..	..	..	271

* A laboratory period is three hours.

FOURTH YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For Details see page
		First Term	Second Term	First Term	Second Term	
Advanced Physics	323	2	2	..	..	271
Applied Elec.-Chem & Lab. (Alt.)	70	2	..	1	..	234
Electro-Metallurgy & Lab. (alt.)	275	..	2	2	1	264
Electrical Designing	122	..	..	1⅓	1⅓	243
Electrical Engineering	117	3	3	.	..	242
Elect. Engineer'g Lab	118	..	..	3	3	244
Elect. Light and Power Distribution	120	3	..	.	..	242
Electric Traction	121	..	3	.	..	243
Hydraulics (alt.)	97	2	..	.	..	238
Hydraul. Lab. (alt.)	98	..	..	1		238
Hydraul. Mach. (alt.)	99	..	2	.	..	239
Machine Design	243	2	..	.	..	257
Mech. Engineer'g Lab.	250	..	..	2	..	258
Thermodynamics	229	2	2	.	..	255

* A laboratory period is three hours.

VI. Mechanical Engineering.

The complete undergraduate course in Mechanical Engineering extends over four years, and provision is made for a fifth year or graduate course in advanced experimental and other work.

The subjects of instruction in this Department are of interest to students who are likely to take up work connected with—

(*a*) the constructive or manufacturing side of mechanical Engineering, including Industrial or Production Engineering.

(*b*) Steam Engineering.

(*c*) Gas Engine and Producer Work.

(*d*) Power Plant Engineering.

(*e*) Heating and Ventilation of Buildings and Factories.

(*f*) Locomotive Engineering.

(*g*) Marine Engineering and Ship Propulsion.

The first two years of the undergraduate course of instruction are largely occupied in preparation in Mathematics, Physics, Chemistry, Mechanics, Drawing and Shopwork.

During the Second Year one lecture and one exercise class per week are devoted to the kinematics and dynamics of machines. While motion without regard to force is treated in the Kinematic course, the action of external forces in producing or changing motion in the links of mechanisms is considered in the Second, Third and Fourth Years, under the head of Dynamics of Machines. The lectures in these two subjects form the course in Mechanics of Machines. Exercise classes are held for the purpose of working the problems necessary for illustration, graphic methods being used in most cases.

The work in Machine Design is carried on during the Third and Fourth Years in conjunction with the practical instruction in mechanical designing and drawing in the Drawing Rooms.

The course in Thermodynamics (see p. 255) deals more particularly with the theory of Heat Engines. Two lectures per week are given during the Third and Fourth Years, and time is assigned for additional graphical and experimental work in connection with the subject.

A course of two lectures per week is given during the Third and Fourth Years in Mechanical Engineering as applied to questions connected with Power Installations and Prime Movers. A large portion of the work of this course is supplementary to, and follows, the instruction given in Thermodynamics and Machine Design, which extends over the Third and Fourth Years.

Students in the Department of Mechanical Engineering take a systematic course in Electrical Engineering during the Third, and Fourth Years. (See p. 244.)

Instruction in Workshop Practice is given in each of the four years. Brief lecture courses on Shop Methods and Tools are given in connection with the practical work. This work is of a systematic nature, and is intended to prepare for, but by no means to replace, that practical experience of manufacturing operations on a commercial basis which every mechanical engineer must obtain for himself.

Students intending to take the Mechanical Engineering Course are requested to confer with the Professor with a view to utilizing the summer vacations for obtaining this experience.

The work of the lecture rooms is illustrated throughout the course by experimental work carried out by the student, and by demonstrations in the laboratories of the department.

Arrangements are made for occasional visits to power plants and manufactories of importance.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses (see pages 192 and 193), with additional course in May and June for Second Year (page 256).

THIRD YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Engineering Economics	171		2	..	..	248
Elements of Electrical Engineering	111	2	2	..	..	244
Electrical Engineering Lab	112	..	..	1	1	244
Machine Design	225	2	2	..	..	254
Mechanical Drawing	231	..	..	2	1	256
Mechanical Engineering	227	2	2	..	..	255
Mechanical Engineering Lab	228	..	..	1	1	255
Mechanics	86	2	..	..	..	235
Mechanics of Machines	224	2	2	⅓	⅓	254
Shopwork	235, 236	..	..	1	1	256
Strength of Materials	87	2	2	..	..	235
Strength of Materials Lab	88	..	..	..	1	236
Structural Engineering	90	..	1	..	1	237
Thermodynamics	229	2	2	..	..	255
Summer School Mech. Drawing	230	..	..	..	..	255
Summer School Shopwork	233, 234	..	..	..	..	256
Summer School Physics	317	..	..	..	..	271

*A laboratory period is three hours.

FOURTH YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Designing	241	..	..	1	2	257
Electrical Engineering Lab.	119	..	..	1	..	245
Engineering Law	175	1	1	..	..	249
Hydraulics	97	2	..	..	..	238
Hydraulic Laboratory	98	..	..	1	..	238
Hydraulic Machines	99	..	2	..	..	239
Machine Design	242	2	2	..	..	257
Mechanical Engineering	244	2	1	..	..	257
** Heating and Ventilation of Buildings	245	..	1	..	..	258
** Locomotive Engineering	246	..	1	..	..	258
** Marine Engineering	247	..	1	..	..	258
Mechanical Engineering Lab.	249	..	.	4	4	258
Mechanics of Machines	240	2	2	$\frac{1}{3}$	$\frac{1}{3}$	257
Shopwork	252	1	1	1	1	259
Thermodynamics	251	2	2	..	..	259

* A laboratory period is three hours.

** One of the three subjects must be taken.

VII. Metallurgical Engineering.

This course is designed for students intending to enter metallurgical works such as iron or steel works or smelters. It includes instruction in the engineering, chemical and metallurgical studies required by practising metallurgists.

A certain amount of mining is included in the Third Year curriculum in order to show the relation between mining and metallurgy; but the course is not intended for students wishing to become mining engineers.

Students who wish to specialize on the chemical side of metallurgy are recommended to select Course VIII.

The first two years of the undergraduates course are mainly devoted to Mathematics, Mechanics, Physics, Chemistry, Drawing and Surveying.

Immediately after the Second Year there is a short summer course in the chemical laboratories.

In the Third Year of the Metallurgical Engineering Course instruction is given in Chemistry, Assaying, Geology, Mineralogy, Metallurgy, Mining, Ore-Dressing, and Mechanical, Structural and Business Engineering.

Between the Third and Fourth Years there is a summer school in Metallurgical Works.

In the Fourth Year instruction is given in Chemistry, Electrical Engineering, Law, Hydraulics, Metallurgy and Ore-Dressing. Metallurgical Designing and Laboratory Work form important parts of the course. The laboratory work is partly Metallurgical and partly Ore-Dressing, in the first term, and in the second term a special piece of experimental work is undertaken by each student.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 192 and 193.

After the Second Year there is a six weeks' summer school in qualitative and quantitative analysis in the Chemical Laboratory, beginning about the first of May.

THIRD YEAR.

SUBJECT.	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Engineering Economics	171	..	2	..	..	248
Fire Assaying, Part I.	263	..	..	2	..	260
Geology, General	141	2	2	⅓	⅓	246
General Elementary Metallurgy	261	2	..	..	..	260
Inorganic Quant. Analysis	61	1	..	..	..	232
Inorganic Quant. Anal. Lab.	62	..	..	2	..	232
Mechanical Engineering	226	2	2	..	..	254
Mechanical Engineering Lab	228	..	..	1	1	255
Mechanics	86	2	..	..	..	235
Metallurgical Calculations	265	1	1	..	..	261
Metallurgical Lab.	262	..	..	1	..	260
Mineralogy	142	2	2	..	..	246
Mineralogy, Determinative	143	..	..	..	2	247
Mining Engineering	291	..	2	..	..	264
Ore Dressing	292	..	2	..	..	265
Ore Dressing Lab.	293	..	..	..	1	265
Strength of Materials	87	2	2	..	..	235
Strength of Materials Lab.	88	..	..	..	1	236
Structural Engineering	90	..	1	..	1	237
Summer School Inorg. Qual. Anal.	54	..	..	..	..	231
Summer School, Inorg. Qual. Anal. Lab.	55	..	..	..	..	232

*A laboratory period is three hours.

After the Third Year there is a six weeks' field course in Geology, Metallurgy and Mining, beginning about the first of May.

Note:—Metallurgical Works, at end of Third Year—See Fourth Year Tables.

FOURTH YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Elements of Electrical Engineering	111	2	2	..	..	244
Electrical Engineering Lab.	112	..	..	1	1	244
Electro-Metallurgy and Lab.	275, 276	..	2	..	1	264
Engineering Law	175	1	1	..	..	249
General Metallurgy	271	2	2	..	..	262
Hydraulics	97	2	..	..	..	238
Industrial Chemistry	69	2	..	..	..	233
Inorganic Quant. Analysis and Lab.	68	1	1	4	1	233
Metallurgy	272	2	2	..	..	263
Metallurgy Colloquium	277	1	1	..	..	264
Metallurgical Lab., Parts I. and II.	273, 274	..	..	1	3	263
Metallurgical Machinery and Design	278	..	1	..	2	264
Ore Dressing	299	2	..	..	..	266
Ore Dressing Lab.	300	..	..	1	..	265
Ore Deposits & Economic Geology (opt.)	148	..	3	..	..	247
Summer School, Metallurgical Works	267	..	..	..	..	261

*A laboratory period is three hours.

VIII. Metallurgy.

This course is designed for students who intend to devote their attention mainly to the chemical side of Metallurgy with the intention of becoming analytical or consulting metallurgical chemists. The first two years are the same as in the Chemistry Course. In the Third and Fourth Years instruction is given in Analytical Chemistry and Assaying, Theoretical inorganic and Electro-Chemistry, Metallurgy, Mineralogy, Geology, and Ore-dressing. Certain options are offered in the Fourth Year.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST YEAR.

As in other courses. For details, see page 192.

SECOND YEAR.

As in Course II, Chemistry. For details, see page 197.

THIRD YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see page
		First Term	Second Term	First Term	Second Term	
Engineering Economics	171	..	2	..	..	248
Fire Assaying, Part I.	263	..	..	2	..	260
Fire Assaying, Part II.	264	..	..	1	..	261
Geology, General	141	2	2	⅓	⅓	246
General Elementary Metallurgy	261	2	..	..	..	260
Inorganic Quant. Analysis	61	1	..	..	..	232
Inorganic Quant. Analysis Lab.	62	..	..	4	3	232
Metallurgy Calculations	265	1	1	..	..	261
Metallurgy, Colloquium & Library	266	1	1	2	2	261
Metallurgical Lab.	262	..	..	1	..	260
Mineralogy	142	2	2	..	..	246
Mineralogy, Determinative	143	..	..	..	2	247
Ore Dressing	292	..	2	..	..	265
Ore Dressing Lab.	293	..	..	..	1	265
Physical Chemistry	58	..	2	..	..	232

*A laboratory period is three hours.

Note:—Metallurgical works, at end of Third Year—see Fourth Year Tables.

FOURTH YEAR.

SUBJECT	Subject Number.	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Applied Electro-Chemistry & Lab	70	..	2	..	1	234
Electro-Metallurgy & Lab.	275, 276	..	2	..	1	264
Engineering Law	175	1	1	..	..	249
General Metallurgy	271	2	2	..	..	262
Industrial Chemistry	69	2	..	..	..	233
Inorganic Quant. Analysis & Lab.	68	1	1	4	1	233
Metallurgy	272	2	2	..	..	263
Metallurgy Colloquium	277	1	1	..	..	264
Metallurgy Lab., Parts I. and II.	273, 274	..	..	1	3	263
Metallurgy Machinery and Design	278	..	1	..	2	264
Ore Dressing	299	2	..	..	..	266
Ore Dressing Lab.	300	..	..	1	..	266
Ore Deposits & Economic Geology (opt.)	148	..	3	..	..	247
Petrography and Lab. (opt.)	147	1	..	..	1	247
Summer School, Metallurgical Works	267	..	..	..	..	261

*A laboratory period is three hours.

IX. Mining Engineering.

The first two years of the undergraduate course in Mining Engineering are mainly devoted to Mathematics, Mechanics, Physics, Elementary Chemistry, etc., as it is deemed necessary that the students should master the general principles underlying scientific work before they attack the somewhat complex and specialized subjects of the professional course.

In the Third Year, elementary courses in both Mining and Metallurgy are given, and a thorough course in Fire Assaying, but again the chief work is in Applied Mechanics, Mechanical Engineering, Chemistry, Geology, and Mineralogy.

The Fourth Year, on the other hand, is very largely given up to detailed work in Mining, Ore-Dressing, Economic Geology, Metallurgy and general engineering and three elective alternative lines of study are offered, all including the essential subjects of the course and all leading to the degree in Mining Engineering, but each permitting of a considerable amount of specialization.

These alternative or sub-courses are:

(*a*) Mining Engineering and Geology.
(*b*) Mining and Metallurgical Engineering.
(*c*) Mining and Hydraulic Engineering.

The details of these sub courses are clearly shown in the tabular statement of the Fourth Year work following, and students are required to choose which one they will take before the close of their Third Year.

In all cases the Fourth Year work includes the equivalent of at least three full days per week in the laboratories and drafting room of the Mining Department and in the second term each student is required to prepare a thesis giving the result of an extended individual experimental investigation.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 192 and 193.

THIRD YEAR.

Subject	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Engineering Economics	171	..	2	..	..	248
Fire Assaying	263	..	..	2	..	260
Geology, General	141	2	2	⅓	⅓	246
Inorganic Qual. Analysis	59	1	..	..	..	232
Inorganic Qual. Analysis Lab	60	..	..	2	..	232
Mapping	355	..	..	1	..	274
Mechanical Engineering	226	2	2	..	..	254
Mechanical Engineering Lab	228	..	..	1	1	255
Mechanics	86	2	..	..	..	235
Metallurgy, Gen. Elementary	261	2	..	..	..	260
Mineralogy	142	2	2	..	..	246
Mineralogy, Determinative	143	..	..	..	2	247
Mining Engineering	291	..	2	..	..	264
Ore Dressing	292	..	2	..	..	265
Ore Dressing Lab	293	..	..	..	1	265
Strength of Mater.	87	2	2	..	..	235
Strength of Materials Lab	88	..	..	..	1	236
Structural Engineering	90	..	1	..	1	237
Surveying	352	2	..	..	..	273
Surveying Field Work	354	..	..	..	..	274

*A laboratory period is three hours.

NOTE—Mining Field work at end of Third Year—See Fourth Year Table.

Surveying Field work, beginning Sept. 5th, 1910.

FOURTH YEAR.

Subject	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Elements of Electrical Engineering	111	2	2	..	..	244
Electrical Engineering Lab	112	..	..	1	1, alt. (b) (c)	244
Engineering Law	175	1	1	..	..	249
Geology of Canada	149	1	..	..	..	248
Geology, Historical	152	1, alt. (a)	1, alt. (a)	..	1, alt. (a)	248
Hydraulics, (Short Course)	101	1, alt. (a) (b)	..	..	..	239
Hydraulics	97	2, alt. (c)	..	..	..	238
Hydraulic Machines	99	..	2, alt. (c)	..	..	239
Metallurgy, General	271	2	2 & 1 alt. (b)	..	..	262
Mineral Analysis	71	..	..	4	..	234
Mining Engineering	297	3	3	..	..	265
Mining Machinery & Design	298	..	1 & 1 alt. (b)	..	2	265
Mining Colloquium	302	..	1	..	..	266
Ore Deposits & Economic Geology	148	1	4	..	..	247
Ore Dressing & Milling	299	3	..	..	..	266
Ore Dressing & Metallurgical Lab	300, 273	..	..	1 & 1 alt (b)(c)	..	266
Ore Dressing Lab. Thesis Work	301	..	..	..	3	266
Petrography & Lab	146	1	..	..	1	247
Petrography, Advanced	147	..	..	1, alt. (a)	..	247
Mining Field School	294	..	..	..	..	268
Geology Field Work (alt. (a))	153	..	..	..	..	248

* A laboratory period is three hours.

X. Department of Railways.

The courses in the Department of Railways are designed for students who will enter:—

(1) The Operating Department or Executive Offices.

(2) The Mechanical Department.

(3) The Engineering Department.

The work of the First and Second Years is identical with that of the other courses in the Faculty of Applied Science; that of the Third and Fourth Years is shown below.

The Faculty reserves the right to reject any student who, in the opinion of the Head of the Department, cannot fulfil the requirements of the railways.

Students in the department will, so far as possible, enter the employ of a railway company, during the summer vacations, with the intention of continuing their connection with the company after graduation.

The subjects of instruction in each branch of the course, and the number of hours per week devoted to each are as follows:

OPERATING AND EXECUTIVE.

FIRST AND SECOND YEARS.

As in other courses. For details, see pages 192 and 193.

THIRD YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Economics	172	2	2	..	..	276
Engineering Law	175	1	1	..	..	249
English	135	2	2	..	..	276
Freight Service	371	..	2	..	..	276
Mapping	355	..	..	2	2	277
Mech. Eng. Lab	228	..	..	1	1	255
Mechanics	86	2	..	..	..	235
Organization & Acc't'g	374	1	1	..	..	277
Ry. Engineering	372	2	2	..	..	276
Ry. Mech. Engineer'g	373	2	2	..	..	277
Strength of Materials	87	2	2	..	..	235
Strength of Materials Lab	88	..	..	..	1	236
Structural Engineering	90	..	1	..	1	237
Shorthand	375	2	2	..	..	277
Telegraphy	376	..	..	1	1	277
Surveying Fieldwork	354	..	..	..	..	274

* A laboratory period is three hours.

FOURTH YEAR.

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods* per week		For details see page
		First Term	Second Term	First Term	Second Term	
Accounting	379	1	1	..	..	278
Elements of Electrical Engineering	111	2	2	..	..	244
Electrical Engineering Lab	112	..	..	1	1	244
Electric Railways	389	2	..	..	..	280
English	138	1	1	..	..	278
Freight Service	380	..	1	..	..	278
Passenger Service	385	1	..	..	..	279
Physical Geography & Climatology	150	1	1	..	..	279
Railway Economics	177	2	2	..	..	278
Railway Engineering	388	..	2	..	..	280
Railway Law	176	2	..	..	..	279
Railway Mechanical Engineering	386, 387	2	2	1	1	280
Railway Operation	381	2	2	..	..	278
Signals and Interlocking	382,383,384	1	1	1	1	279
Shorthand	390	2	2	..	..	281
Telegraphy	391	..	..	1	1	281

* A laboratory period is three hours.

MECHANICAL ENGINEERING DEPARTMENT.

The work of the First, Second and Third Years will follow that outlined for Mechanical Engineering students (page 209). During the Fourth Year opportunity will be given for specializing in locomotive construction and operation.

CIVIL ENGINEERING DEPARTMENT.

Students in this course will follow that outlined for Civil Engineering students (page 202) and, in addition, will be required to engage in practical work during the vacations under the supervision of the Department of Railways.

COURSES OF LECTURES.

N.B. The following courses are subject to such modifications during the year as the Faculty may deem advisable.

I. Architecture.

PROFESSORS:— PERCY E. NOBBS, M.A. (Edin.), A.R.I.B.A.; A.R.C.A.
THOMAS W. LUDLOW, B.Sc.

LECTURERS:— PHILLIP TURNER, F.R.I.B.A.
CECIL S. BURGESS, A.R.I.B.A.
E. S. S. MATTICE, B.A.Sc., M. Can. Soc. C.E.
M. C. T. BEULLAC, B.Sc., A.M., Can. Soc. C.E.
H. HEBERT.

A.—DESIGN.

There are three grades in the design classes, in each of which at least two terms are required to qualify for the Degree.

No. 1. *Grade A.*—(Two periods per week)—Six problems in Composition are set each session, the subjects being adapted to simple trabeate treatment, and monumental grouping. (Types and materials prescribed.)

No. 2. *Grade B.*—(Four periods per week)—Four problems in Composition are set each session for working out, and sketch problems are set from time to time. The subjects involve simple plans and the grouping of elements. (Types and materials optional.)

No. 3. *Grade C.*—(Six periods per week)—A series of planning problems are set in the first term, some of which only are worked out in detail. In the second term the diploma design for graduation occupies the whole of the time.

MR. NOBBS.

B.—ÆSTHETIC.

Theoretical courses intended to accompany the three grades in design have been instituted with the object of developing a point of view from which the student may form a basis for critical judgment, and with the incidental intention of affording some training in the mental process of dealings with problems of design.

The Elements of Architecture (24 *Lectures*). *No.* 4.

First Term. (*a*) *Elements of Character*:—Analogies in the methods of the Arts, proportion, scale and other qualities.

(*b*) *Physical Elements*:—Plinths, solids, voids, coverings, skyline and features dealt with from the point of view of treatment.

(*c*) *Material Elements*:—Masonry, roofing materials, internal linings considered in relation to uses.

Second Term. (*d*) *Principles of Composition*:—Unity, symmetric and asymmetric grouping.

(*e*) *Media of Architectural Expression*:—Line, form, mass, colour, light and shade.

Mr. Nobbs.

Theory of Design (24 *Lectures*). *No.* 5.

First Term. (*a*) *Æsthetic Practice*:—Pure design in nature and art. The function of ornament. The moral logic of ornamental motif. The material logic of ornamental treatment. Evolution of form. The placing of ornament. Classification of significant ornament.

Second Term. (*b*) *Æsthetic Theory*:—Summary of the history of æsthetic enquiry. The senses, phenomena of perception, pleasure and pain and expression. The art impulse, beauty. The relation of beauty to the Arts. Subject, emotional content and medium in works of Art. The criteria of excellence.

Mr. Nobbs.

Theory of Planning (24 *Lectures*). *No.* 6.

First Year. (*a*) *Elements of Planning*:—The relation of planning to external composition. Method of procedure, dimensions and arrangements, various scales, aspect, prospect.

(*b*) *Domestic Arts*:—Stables, working class housing, cottages, small houses, apartment houses, residences, mansions.

(*c*) *Ecclesiastical Art*:—Various types of Church plans in relation to service.

(*d*) *Specialized Types*:—Fire stations, baths, hospitals, schools, factories, libraries, etc.

(*c*) *Public Buildings*:—Town halls, municipal buildings, court houses, Parliament buildings, large halls.

MR. NOBBS.

Ornament and Decoration.

(48 *Lectures and* 48 *Drafting Periods of three hours distributed over four terms.*)

Nos. 7, 8, 9 *and* 10.

Theses courses are intended to afford at once a basis of critical appreciation of the decorative and industrial arts of all periods, and a training in the ornamental sense, decorative treatment and technique required by the ornamentalist. This course constitutes the links between the Archæology, the Aesthetic and the Construction courses herein described. The design of detail with something of deeper meaning than a perfunctory knowledge of past styles is the object of the course.

FIRST TERM. No. 7. (*a*) *Decorative Heraldry*:—The place of heraldic motif in the Arts. The laws of heraldry, heraldic Art of different periods. Modern practice and tendencies.

In the Drafting Room heraldic designs of various periods are studied graphically and later on blazons are interpreted in relation to different scales, materials and techniques. Problems in composition involving the choice of symbolic motif are also set and criticised.

SECOND TERM. No. 8. (*b*) *Ornament in Form*:—Plaster work, terra cotta, stone carving, architectural sculpture, wood carving and furniture design are dealt with historically from the point of view of the evolution of form in distinctive materials influenced incidentally by the prevailing tastes of different periods. In the studio typical examples of work in each craft are studied independently of questions of style, and designs are prepared for plaster ceilings, terra cotta work, carving and sculpture in various materials and for furniture.

THIRD TERM. No. 9. (*c*) *Metal Work*:—Wrought iron work, cast iron work and bronze, beaten metal work in copper, brass and silver are dealt with technically and historically, as in the case of the studies of the second term. Work-shops are visited from time to time and drawings are made from old examples of metal work, and designs are prepared under criticism.

FOURTH TERM. No. 10. (*d*) *Color Decoration*:—Stained glass. Mosaic of various kinds, inlays, the use of coloured materials in external and internal design, mural decoration, and the analysis and construction of pattern are studied in the spirit above set forth. Drawings from old examples and designs in each medium occupy the draughting periods.

C.—ARCHAEOLOGY.

A course in General History and courses in the various periods of architectural development are arranged, the former providing a background for the latter in which the buildings of the Western Peoples from the earliest times to the present day are studied as the evidences of intelligent effort to meet the physical requirements and to satisfy the demands of human sentiment under varying natural and social conditions. Account is taken of the larger impulses which have induced great effort and accomplishment in building, and the main lines of thought which have shaped the works of the great building peoples are traced through their origin, progress and final stages in each of the successive epochs of history.

General History. (48 *Lectures extended over four terms*). *Nos.* 11 *and* 12.

A special course is provided designed to offer such a general knowledge of European History as may be applied to the pursuit of professional studies for which an historical background is of value. Stress will be laid on chronology and geography.

No. 11. FIRST TERM. The detailed study of the civilization of the early Orient, of Greece, Rome and Byzantium.

SECOND TERM. The mediæval period, feudalism, monasticism, the communes and the guilds.

No. 12. FIRST TERM. (*a*) European History from the fifteenth century. The Renaissance and the Reformation and their results in the sixteenth century.

SECOND TERM. (*b*) The eighteenth and nineteenth centuries with special reference to France and England.

DR. FRYER.

Classic Architecture. (24 *Lectures.*) *No.* 13.

FIRST TERM. (*a*) The works of the ancient Egyptians, Chaldeans, Assyrians, Persians, the Ionian Peoples and the Greeks with special attention to the refinement of form in Hellenic Art.

SECOND TERM. (*b*) The Architecture of Rome and the Byzantium and the succeeding period down to 1000 A.D. Various types of Roman buildings; the grouping and scale of Roman work. The evolution of barrel vaulting and the dome and their influence on planning.

MR. LUDLOW.

Mediæval Architecture. (24 *Lectures.*) *No.* 14.

FIRST TERM. (*a*) The evolution of Ecclesiastical Architecture in France and England from 1000 A.D. to 1500 A.D. The development of rib vaulting as a structural system. The evolution of Gothic ornament.

SECOND TERM. (*b*) Civil and military Architecture of the Middle Ages in Europe. The Gothic Schools of Italy, Spain, and the Germanic countries.

MR. LUDLOW.

Renaissance Architecture. (24 *Lectures.*) *No.* 15.

FIRST TERM. (*a*) The Humanist Movement of the 15th Century as expressed in Italian Architecture from 1400 A.D. to 1600 A.D.

SECOND TERM. (*b*) The Renaissance in France and the King Louis Period.

The earlier and later phases of the Renaissance in England and English Architecture during the XVIIIth Century.

MR. LUDLOW.

Modern Architecture. (24 *Lectures.*) *No.* 16.

FIRST TERM. (*a*) The Gothic Revival in England. The influence of Pugin, Ruskin and Morris and the Preraphaelites. The Arts and Crafts movement. Shaw and the Free-Classicists. National traditions and Exotic styles.

(*b*) Taste in Europe during the XXth Century. France, Germany and the Scandinavian countries. Russian revivals. Italy. The Secession.

SECOND TERM. (*c*) Municipal development. European and American city plans, park systems, monuments.

(*d*) XXth Century influences in America. Colonial traditions of New England and the Spanish and French districts. The Beaux Arts influence. The English influences of various kinds. L'Art Nouveau in Europe and America.

MR. NOBBS.

D.—SCIENCE.

Mathematics. (96 *Lectures in First Year and* 72 *in Second.*) *Nos.* 17 *and* 18.

(See page 155.)

Instruction is provided in the Department of Mathematics in the Faculty of Arts.

Physics. (48 *Lectures*) . *No.* 500.

(See page 270.)

Physics. Laboratory Course. (24 *Periods.*) *No.* 501.

(See page 270.)

Instruction is provided by the Department of Physics in the Faculty of Applied Science.

Surveying. (*Full Course*: 3 *weeks Field Shool,* 48 *Lectures and* 24 *Draughting Periods.*) *Nos.* 160 *and* 165.

(See page 273.)

Instruction is provided by the Department of Surveying and Geodesy in the Faculty of Applied Science.

Hygiene of Buildings. (24 *Lectures in First Term,* 12 *Lectures and* 12 *Draughting Periods in Second Term*). *Nos.* 19 *and* 20.

No. 19. First Term. (*a*) Light and air, water, sanitary plumbing, sewage disposal.

Dr. Starkey

No. 20. Second Term. (*b*) The heating and ventilation of buildings.

Instruction is provided by the Department of Mechanical Engineering, in the Faculty of Applied Science.

E.—Construction.

The construction is taught both orally and graphically, the lectures and draughting work supplementing one another. The Second Year work covers the ordinary building trades and detailing where calculations of a complicated kind are not involved. The Third Year work deals with structural problems involving calculation, while in the Fourth Year, problems in structural design are worked out.

Building Construction and Building Detail. (24 *Lectures,* 48 *Draughting Periods.*) *Nos.* 21 *and* 22.

First Term. (*a*) Building materials, brickwork, masonry, carpentry and roofing, etc.; exercises in detailing are taken up in the Drafting Periods.

Second Term. (*b*) Joinery of doors, windows, etc., and the finishing trades, such as plastering, painting and plumbing.

(*c*) Underpinning, shoring, centering and forms. General working drawings involving several trades are prepared in the Drafting Room. Building works in progress are visited.

Mr. Turner.

Structural Engineering and Structural Detailing. (48 *Lectures and* 24 *Draughting Periods.*) *Nos.* 23 *and* 24.

First Term. (*a*) Steel Construction:—Ores and manufacture of iron and steel; theory of beams, cases of loading. Designing, detailing and shop work of beams. Columns:—theory, calculations, eccentric loads; single-sections and built-up steel columns; design and details. Cast iron columns, design and details; beam box girders, plate girders, calculation, design and details. Design of steel frame work for buildings; specifications for and inspection of structural steel work; wind bracing and fire-proofing of steel frame buildings.

Second Term. (*b*) Foundations:—soils, foundation beds, timber and concrete piles, pile driving and pile driving machinery, bearing power of piles, pile capping; foundations on compressive soils, sand layers, sand piles; concrete footings, plain and reinforced; timber spread footings, steel spread footings (rail and I beams); masonry footings—foundations on hard pan and rock; loads on buildings; strength of masonry, statics of masonry, buttresses, stability of buildings, retaining walls.

(*c*) Arches:—Theory of Arches.

In the Drafting Room the structural detailing of steel sections, beam connections, etc., and the complete design of the steel work, foundations and joisting for commercial building, and the preparation of shop drawings for steel work are taken up.

Mr. Beullac.

Graphical Statics and Structural Design. (24 *Lectures and* 48 *Draughting Periods.*) *Nos.* 25 *and* 26.

First Term. (*a*) Analytical and Graphical Statics. The design of roof trusses and mill buildings.

Second Term. (*b*) Reinforced concrete in foundations, walls, floors and beams, etc.

In the Drafting Room:—The calculations and shop drawing for trusses and the general design of the steel work for one or more types of building.

Mr. Mattice.

F.—Architectural Practice.

English Composition. (24 *Lectures with Exercises.*) *No.* 226.

(See page 245.)

Instruction is provided with the Applied Science First Year classes.

French. (96 *Lectures.*) *No.* 27.

(See page 130.)

Instruction is provided by the Department of Modern Languages in the Faculty of Arts.

Architectural Practice. (24 *Lectures with exercises.*) *No.* 28.

First Term. (*a*) Structure of specifications and general clauses.

(*b*) Specifications for all trades.

Second Term. (*c*) Conditions of contract; agreements.

(*d*) Building by-laws.

(*e*) Estimates, reports, professional ethics.

Mr. Turner.

Law. (24 *Lectures.*) *No.* 526.

(See page 249.)

Instruction is provided with the Applied Science Fourth Year Classes.

G.—Drawing.

Architectural Drawing. (96 *Periods of Four Hours, extended over the four years.*) *Nos.* 29, 30, 31 *and* 32.

The work in this course is in direct connection with the lectures in Archæology.

First Year.—Measured drawings of the orders are prepared direct from the large scale models in the Museum, and existing buildings are surveyed and drawn out.

Second Year.—Restorations from the Architectural remains of Greece and Rome, are prepared from the documents in the Reference Room.

THIRD YEAR.—Examples of mediæval architecture are studied. Sketch plans and elevations of important works are set up and detail drawings are prepared from documents.

FOURTH YEAR.—A special study is made during the first term of Italian Renaissance examples. The XVIth Century Architecture of France and England and late examples of French or English fully developed Classic are studied.

MR. BURGESS.

Freehand Drawing. (24 *Periods*) *Nos.* 33.

A reasonable proficiency in drawing is a condition of admission to the School.

Tuition in Freehand Drawing, as distinct from the study of design, is provided for First Year students only.

MR. BURGESS.

Geometrical Drawing and Descriptive Geometry. (24 *Lectures and* 48 *Periods in First Year and* 12 *Lectures and* 12 *Periods in Third Year.*) *Nos.* 341 *and* 351.

(See page 241.)

Instruction is provided with the First and Third Year Applied Science Classes.

Modelling. (72 *Periods of Three Hours extended over the First, Second and Third Years.*) *Nos.* 34, 35 *and* 36.

The Modelling Room is equipped with a collection of natural objects, and casts from nature—plants, animals, etc., affording examples of motif. The student first studies form directly from nature, and later on conventionalizes the forms with which he has become familiar for decorative purposes. The Architectural Museum affords many examples from different periods of the adaptation and abstraction of natural motifs in ornament. They are used to show the spirit in which to work out ornament, and are not copied directly. Models of designs on which the students are engaged are also prepared, and casting is taught.

MR. HEBERT.

Chemistry

PROFESSOR:—J. WALLACE WALKER, Ph.D., *Director.*

ASSOCIATE PROFESSORS:—NEVIL NORTON EVANS, M.A.Sc.; DOUGLAS MCINTOSH, D.Sc.

LECTURER:—F. M. G. JOHNSON, Ph.D.

DEMONSTRATORS:—W. BUELL MEDRUM, M.Sc.; H. W. MATHESON.

PROFESSOR OF ORGANIC AND BIOLOGICAL CHEMISTRY (FACULTY OF MEDICINE):—R. F. RUTTAN, B.A., M.D.

SECOND YEAR LECTURES.

51. *General Chemistry.*—An introductory course in descriptive and theoretical chemistry. The fundamental laws and theories are studied in conjunction with a detailed description of the preparation, properties and industrial applications of the more important elements and their compounds. Three hours a week.

Text-Book:—Alex. Smith's General Chemistry for Colleges.

54. *Inorganic Qualitative Analysis.*—A course explanatory of the work done in the laboratory (course 55). One lecture a week in the second term.

For reference:—Treadwell's Qualitative Analysis.

SECOND YEAR LABORATORY.

52. *General Chemistry.*—In this course the student is taught the construction and use of ordinary apparatus and performs a series of experiments designed to cultivate the powers of observation and deduction. Many of these experiments involve accurate weighing. Considerable attention is also devoted to the subject of qualitative analysis. One period a week for all students of Engineering.

53. *General Chemistry.*—An extensive course illustrating the methods adopted in establishing the fundamental laws and in the preparation and purification of inorganic chemicals. Five periods a week in the first term for students of Chemistry and Metallurgy.

55. *Inorganic Qualitctive Analysis.*—A complete course. Five periods a week in the second term, or (for Chemical and Metallurgical Engineers) its equivalent in the summer school.

Text-Book:—A. A. Noyes' Qualitative Chemical Analysis.

THIRD YEAR LECTURES.

56. *Organic Chemistry.*—Three lectures a week during the first term.

Text-Book:—Holleman's Organic Chemistry, or Remsen's Organic Chemistry.

58. *Physical Chemistry.*—An introductory course following the development of chemical theory, including vapour densities, molecular weights, the mass law and the phase rule.

Text-Book:—Walker's Introduction to Physical Chemistry.

59. *Inorganic Qualitctive Analysis.*—A course explanatory of the work done in the laboratory. One lecture a week in the first term for Mining Engineers only.

Text-Book:—A. A. Noyes' Qualitative Chemical Analysis.

61. *Inorganic Qualitative Analysis.*—A course on the general principles involved in quantitative analysis. One lecture a week during the first term.

64. *Mineral Analysis.*—The special methods applied in the analysis of minerals. One lecture a week during the first term.

For reference:—Treadwell's Quantitative Analysis.

THIRD YEAR LABORATORY.

57. *Organic Chemistry.*—A course on the preparation, detection and analysis of the commonest organic compounds. Two periods a week in the first term.

Text-Book:—

60. *Inorganic Qualitative Analysis.*—A course adapted to the requirements of Mining Engineers. Two periods a week in the first term.

62. *Inorganic Quantitative Analysis.*—An extensive course on gravimetric and volumetric methods, including gas analysis.

Text-Book:—Clowes and Coleman, Quantitative Analysis, 8th Edition.

63. *Applied Electro-Chemistry.*—An introductory course preparatory to the study of Electro-Chemistry and Electro-Metallurgy of the Fourth Year. One period a week for students of Electrical Engineering only.

65. *Mineral Analysis.*—A more extended course than 71.

FOURTH YEAR.

66. *Organic Chemistry.*—A systematic course, comprising two lectures and six laboratory periods a week.

Text Book:—Wade's Introduction to the Study of Organic Chemistry.

67. *Physical Chemistry.*—The lectures, which are a continuation of those given during the Third Year, include the kinetic theory, thermo-chemistry, the principles of thermo-dynamics as applied to chemical action, osmotic phenomena and their application in deducing the ionisation theory of solutions, a study of such physical properties of gases, liquids and solids as are known to depend on their chemical constitution, and electro-chemistry. Two lectures and two laboratory periods a week in the first term, two lectures and one laboratory period a week in the second term.

For reference:—Ramsay's Text-Books of Physical Chemistry.

Text-Book:—Findlay's Physico-chemical Measurements.

68. *Inorganic Quantitative Analysis.*—The lectures deal with the special methods of analysis of iron and steel, alloys and water. One lecture a week in the second term.

The laboratory work is a continuation of course 62 and is adapted both in extent and in subject matter to the needs of individual students, various other courses being allowed as partial alternatives.

For reference:—Furman, Manual of Practical Assaying: Blair, Chemical Analysis of Iron; Blearley and Ibbotson, Analysis of Steel Works Materials.

69. *Industrial Chemistry.*—An extensive course on the leading chemical industries. Two lectures a week.

70. *Applied Electro-Chemistry.*—The laws of electrolysis and of solutions are studied from the stand-point of the osmotic theory, also primary and secondary batteries, electroplating, polarisation and the preparation and electrochemical behaviour of the rarer elements used in incandescent lamps. The most important technical processes are studied and typical substances prepared in the laboratory. Two lectures and one laboratory period in the second term.

For reference:—Le Blanc, Elements of Electro-Chemistry; Blount, Practical Electro-Chemistry.

71. *Mineral Analysis.*—A laboratory course specially designed for Mining Engineers. Four periods a week in the first term.

For reference:—Furman, Manual of Practical Assaying.

3. Civil Engineering and Applied Mechanics.

PROFESSOR:—H. M. MACKAY, B.A., B.Sc.

ASSOCIATE PROFESSOR:—E. BROWN, M.Sc., M. ENG.

LECTURERS:—C. BATHO, M.Sc.; W. S. LEA, B.Sc.; H. M. LAMB, B.Sc.

DEMONSTRATOR:—J. N. FINLAYSON, M.Sc.

81. *Materials of Construction.*—Manufacture and properties of cast iron, wrought iron, crucible, bessemer and open hearth steel; principal alloys; considerations governing selection of materials; manufacture and properties of Portland and natural cements; limes; concrete; stone and brick masonry; principal kinds of timber used for engineering purposes; preservation of timber. Discussion of standard specifications.

Required of all Engineering students in the Second Year.

One hour per week. Professor MacKay.

82. *Graphical Statics.*—Composition of forces; general methods involving the use of funicular and force polygons; determination of reactions, centres of gravity, bending moments and moments of resistance; stresses in cranes, braced towers, roof trusses and bridge trusses.

Required of all Engineering students.

Three hours per week, second term of Second Year. Mr. Lamb, Mr. Lea, Mr. Finlayson.

83. *Mechanics.*—The course treats of the general principles of statics, the laws of motion and dynamics of a particle. Cases of motion under varying force are treated, and a knowledge of differential and integral calculus is essential. Students taking the course must attend the Second Year mathematics course in the calculus. They must also have taken First Year dynamics (see mathematics courses) or be otherwise qualified.

Three lectures per week, second term of Second Year. Mr. Brown, Mr. Batho, and Mr. Richardson.

Text-Book:—Jeans, Theoretical Mechanics.

86. *Mechanics.*—The work of the Second Year course in mechanics is extended, and the dynamical equations for the motion of a rigid body in two dimensions are deduced. Numerous examples are worked in detail, including problems on flywheels, kinetic energy of bodies having translation and rotation, oscillation of a rigid body about fixed axis of suspension, impulsive forces, etc. The elementary principles of hydrostatics are also considered.

Two lectures per week, first term of Third Year.

Mr. Brown, Dr. Eve and Mr. Batho.

Text Book:—Jeans, Theoretical Mechanics.

87. *Strength of Materials.*—This course deals with the fundamental principles of the strength of materials. It includes the following:—Stress, strain, resilience, and the elastic properties of materials used in construction; bending moment and shearing force diagrams; strength curvature and deflection of beams; continuous beams; cantilever beams and the like; simple problems on rolling loads; the strength of shafting; spiral springs; bending combined with tension or compression; elementary consideration of compound stresses; distribution of shearing stress on various sections, etc.

Required of all Engineering students.

Two lectures per week during session, Third Year.

Mr. Brown and Mr. Batho.

Text Book:—Strength of Materials—Morley.

88. *Strength of Materials Laboratory.*—The work is arranged to illustrate the principles of the lecture course in strength of materials (87), and includes the following:—Tension tests of various materials in 100 ton and 30 ton testing machines; determination of stress-strain diagrams by automatic recorders and by extensometers and scales; deflection of beams; wood and metal; torsion of shafts within elastic limit, and subsequent twisting to destruction; deflection and vibration of spiral springs, and torsional oscillations of wires; the moment of inertia of flywheels by oscillation and falling weight tests; determination of Young's modulus for various materials in small testing machines; complete tests of Portland cement; the friction of belts; efficiency of chain blocks; experiments on tension and twisting of wires; bending combined with torsion as in shafting; together with demonstrations on the large testing machines of tensile tests of various materials, the breaking of beams and small columns, the compressive strength of concretes, bricks, mortars etc.

Students must be in attendance on Strength of Materials, Course 87, or be otherwise qualified, in order to take the laboratory course.

Three hours per week, second term of Third Year.

Mr. Brown and assistant staff.

89. *Foundations and Masonry.*—Borings; bearing power of soils; piles and pile driving; concrete piles; footings; grillages; underpinning; foundations under water; coffer dam, open dredging, pneumatic and freezing processes; estimation of quantities from drawings; estimates of cost.

Strength of Materials (87) must be taken concurrently, or the student must have equivalent preparation.

Required of students in Courses IV and X.

Four hours per week, first term of Third Year.

Professor MacKay, Mr. Lamb, Mr. Finlayson.

Reference Books:—Baker's Masonry Construction; Fowler's Ordinary Foundations.

90. *Structural Engineering.* — Problems in the design of beams, plate girders, columns, roof trusses, knee bracing, etc.; working drawings; reinforced concrete; estimates of quantities; estimates of cost.

Required of students in Courses III, IV, VI, VII, IX and X.

Four hours per week, second term of Third Year.

Mr. Lamb and Mr. Finlayson.

Reference Books:—Ketchum's Mill Building Construction; Freitag's Architectural Engineering; Cambria Steel.

94. *Theory of Structures.*—(With Strength of Materials). —This course for Fourth Year students includes some more advanced work on strength of materials than that covered in the Third Year course in that subject, but deals principally with the application of graphical and analytical methods to the determination of the stresses in framed structures generally, such as bridge and roof trusses; two-hinged and three-hinged braced arches; the stresses in an arch rib with ends hinged and with ends fixed; general problems in deflection of beams and trusses; concentrated loading on continuous spans, and its application to swing bridges; the principle of least work as applied to statically indeterminate problems; earth-work theories and their application to retaining walls; suspension bridges, etc. In the drafting room a series of problems will be worked out illustrating the topics dealt with in the lectures.

Required of Civil Engineering students in the Fourth Year.

Three lecture hours and one drafting room period per week.

Professor MacKay, Mr. Brown.

Reference Books:—Merriman and Jacoby,—Roofs and Bridges; Bovey,—Theory of Structures.

95. *Reinforced Concrete.*—The analysis of reinforced concrete beams accompanied by laboratory tests. The design of reinforced arches retaining walls, bins, etc

Six hours per week, second term.

Professor MacKay, Mr. Brown.

96. *Bridge Design.*—The reasons governing the selection of a particular type of bridge; discussion of the loads to which

the bridge will be subjected; calculation of the stress in the several members; determination of the sectional areas and forms of the members; design of the connections; preparation of complete drawings.

Required of Fourth Year students in Civil Engineering.

Eight hours per week.

Professor MacKay, Mr. Lamb, Mr. Finlayson.

Text Books:—Merriman and Jacoby's Roofs and Bridges; Bovey's Theory of Structures; Burr and Falk's Design of Metallic bridges; Ketchum's Highway Bridges; Thomson's Typical Steel Railway Bridges; Waddell's De Pontibus.

97. *Hydraulics.*—The course deals with the fundamental principles of hydraulics and includes a discussion of the theory of the following subjects, together with numerous examples in illustration:—Discharge from orifices; hydraulic coefficients; flow through large orifices, free or submerged; discharge of notches and weirs; the flow in pipes, and open channels; the pressure exerted by a jet impinging on a fixed or moving surface, the efficiency of such jets, and the application of the principles considered to problems on turbines. Required of all Engineering students in the Fourth Year.

Two hours per week, first term.

Mr. Brown.

Text Book:—Hydraulics and Its Applications—Gibson.

98. *Hydraulic Laboratory.*—The course is arranged to illustrate the work in Hydraulics (lecture course 97). It includes the measurement of the discharge of orifices and notches under varying conditions, and a determination of discharge coefficients; measurements of the pressure exerted by a jet impinging on vanes of various forms and the efficiency of the impact; experiments on the loss of head by surface friction, and at bends in pipes; measurements of flow through a Venturi meter; tests of a hydraulic ram; together with efficiency tests of Pelton wheel, Brotherhood three cylinder reciprocating motor, Girard impulse turbine, Thomson reaction turbine, etc., under varying conditions. Students taking this course must be in attendance on Hydraulics, Course 97, or be otherwise

qualified. Required of students of the Fourth Year in Courses IV, V and VI.

Three hours per week, first term.

Mr. Brown and assistant staff.

99. *Hydraulic Machines.*—The theory of turbines and centrifugal pumps. Various types of turbines and pumps are considered, the hydraulic principles underlying their construction and design are explained, and numerical examples worked, illustrating the methods of obtaining the general proportions of wheels, vane angles, etc., for required conditions. High pressure and low pressure water power systems; hydraulic accumulators and intensifiers and their functions on a supply system; calculations on accumulator capacity on a supply system; the inertia forces acting in the case of machines with reciprocating motion driven by water under pressure, and the application of the results to the case of pumps, motors, riveters, etc.; consideration of the conditions affecting available kinetic energy at the nozzle of an impulse turbine, such as the Pelton wheel; form of vanes of such a wheel, and methods of regulation; the general question of power regulation of turbines with examples of various methods; hydraulic cranes, elevators, brakes, riveters, etc.

Students attending this course must have taken Hydraulics, Courses 97 and 98, or be otherwise qualified.

Two hours per week, second term.

Mr. Brown.

Text Book:—Hydraulics and Its Applications—Gibson.

101. *Hydraulics and Laboratory.*—(Mining Students). A short course embodying the hydraulic principles outlined under Courses 97 and 98 will be given to mining students in the first term. There will be one lecture per week, and four or five laboratory periods at hours to be arranged.

Text Book:—Hydraulics and Its Applications—Gibson.

91. *Municipal Engineering.*

(*a*) *Sewage of Cities and Towns.*—The various systems for the removal of sewage; special methods in use for its treatment and ultimate disposal; the proportioning and con-

struction of main, branch and intercepting sewers; inverted syphons and submerged outlets; manholes, flush tanks, catch basins, storm water overflows, etc; field and office work in connection with preliminary surveys, design, estimates of cost, construction, record plans and management; materials used in construction.

(*b*) *Roads and Pavements.*—Methods of construction; cost; durability and desirability of the various kinds of pavements; grades and cross sections; methods of assessment of costs; methods of maintenance and cleaning.

Required of Civil Engineering students in the Third Year.

One hour per week. Mr. Lea.

100. *Water Supply.*—The quantity and quality of water; rainfall and evaporation; storage as related to the supplying capacity of watersheds; combined and separate fire and domestic systems with reference to their requirements as factors in the selection of sources of supply; works for the collection, storage and carriage of water to the point of distribution; natural and artificial purification; the distribution system with location of mains, hydrants, valves, blow-offs, etc.; field and office work in connection with design, estimates of cost, construction, record plans and management.

Required of Civil Engineering students in the Fourth Year.

Two hours per week, second term. Mr. Lea.

105. *Advanced Courses.*—Provision will be made if a sufficient number of properly prepared students present themselves for more advanced courses of lectures as follows: (A) The elastic theory of the arch, and the complete design of steel and reinforced concrete arches; (B) The computation of statically indeterminate and secondary stresses in framed structures.

4. Descriptive Geometry.

LECTURERS:— C. H. McLEOD, MA.E.
H. F. ARMSTRONG.
J. B. HARVEY, M.Sc.
E. O. T. PIERS, B.Sc.

This course deals with the methods of representing objects on one plane so that their true dimensions may be accurately scaled. It discusses the methods employed in the graphical solution of the various problems arising in engineering design, and deals generally with the principles underlying all constructive drawing. The methods taught are illustrated by applications to practical problems. It is the aim of the work to develop the imagination in respect to the power of mentally picturing unseen objects, and, incidentally, precision in the use of the drawing instruments is attained.

341. FIRST YEAR. — Geometrical drawing; problems on straight line and plane; projections of plane and solid figures; curved surfaces and tangent planes; intersections of surfaces; axometric projections; shades and shadows. Mr. Armstrong.

Text Books:—Geometrical Drawing by C. H. McLeod; McLeod's Elementary Descriptive Geometry.

351. THIRD YEAR.—Mathematical perspective and perspective of shadows, etc.; photographic surveying; graphical determination of spherical triangles; spherical projections and the construction of maps. Mr. Harvey. Mr. Piers.

5. Electrical Engineering.

PROFESSOR:—L. A. HERDT, D.Sc.

ASSISTANT PROFESSORS:—C. V. CHRISTIE, B.Sc., M.A.

SPECIAL LECTURER IN ELECTRICAL DESIGN:—JULIEN DALEMONT, M.Sc.

SENIOR DEMONSTRATOR:—E. GODFREY BURR, B.Sc.

DEMONSTRATOR:—J. H. TRIMINGHAM, B.Sc.

113. *Electrical Engineering.*—The theoretical consideration of continuous current flow in circuits of different kinds with constant and variable electromotive force applied; the laws of electro-magnetism and of the magnetic circuit; the action and principles of design of sychroncres, commutating and rectifying machinery. Required of students in Electrical Engineering.

Two hours per week. Mr. Christie. First and second terms.

Text Book:—Elements of Electrical Engineering—Franklin and Esty.

117. *Electrical Engineering.*—The theoretical consideration of variable current flow in circuits containing resistance, inductance and capacity under different conditions; the action and principles of design of commutating, synchronous and induction machinery. Required of students in Electrical Engineering. Must be proceded by course 113.

Three hours per week. Mr. Christie. First and second term.

Text Book:—Elements of Electrical Engineering, C. P. Steinmetz.

120. *Electric Lighting and Power Distribution.*—The Design and operation of central and isolated lighting and power plants; the design and construction of distributing lines; arc and incandescent lighting; the appliances of stationary motors to general power purposes; Power Plant design. Required of students in Electrical Engineering. Must be preceded by course 113.

Three hours per week.—Prof. Herdt. First term.

Text Book:—Standard Handbook for Electrical Engineers.

121. *Electric Traction.*—Determination of the power required to accelerate and draw, at different speeds, loads under varying track and other conditions; car equipment as affected by nature of service; track construction; systems of distribution for urban and for heavy through traffic conditions. Required of students in Electrical Engineering. Must be preceded by course 113.

Three hours per week.—Prof. Herdt. Second term.

Text Book:—Standard Handbook for Electrical Engineers. Students are furnished with supplementary notes.

122. *Electrical Designing.*—Detailed electric and magnetic calculations and complete drawings for a commutating machine, a synchronous machine and a transformer or an induction motor. Required of students in Electrical Engineering Must be preceded by course 113 and taken in conjunction with course 117.

Three hours per week.—Mr. Dalemont. First and second terms.

Text Book:—Hobart, Design of Continuous Current Machinery. Supplemented by MS. notes and data.

Electrical Engineering Laboratory.

114. Includes such tests of direct current metering and controlling devices, dynamos, motors, boosters, motor generators, dynamotors converters open and closed coil, constant current machines and arc and incandescent lamps as illustrate the principles of their action and the limits of their proper use; also complete test of direct current isolated or central lighting or power plant. Required of students in Electrical Engineering. Must be taken in conjunction with or preceded by course 113.

Six hours per week. First and second terms.

Text Book:—Experimental Electrical Engineering—Karapetoff. In addition, students are furnished with special laboratory notes and forms.

118. Includes experiments on variable current flow in circuits of different kinds; tests of alternators, synchronous motors and converters, compensators, induction motors, transformers, frequency and phase changing apparatus, potential regulators, reaction coils, etc., and complete test of alternating or lighting or power plant. Required of students in Electrical Engineering. Must be preceded by course 113, and taken in conjunction with course 117.

Nine hours per week. First and second terms.

Text Book:—Experimental Electrical Engineering—Karapetoff. Students are also furnished with special laboratory notes and forms.

111. *Elements of Electrical Engineering* for Third Year students in Mechanical Engineering and Fourth Year students in Civil and Mining Engineering and Transportation.

A general course in Electrical Engineering, treating of the laws of electro-magnetism; continuous and alternating current flow in various circuits; characteristics of direct and alternating current machinery; the fundamental principles of electric lighting and power distribution and electric traction.

Two hours per week.—Prof. Herdt. First and second terms.

Text Book:—Elements of Electrical Engineering, Franklin and Esty.

112. *Electrical Engineering Laboratory* for Third Year students in Mechanical Engineering and Fourth Year students in Civil and Mining Engineering and Transportation.

Includes tests of direct current metering and controlling devices, dynamos, motors, boosters, motor generators and constant current machines; experiments of variable current flow in circuits of different kinds; tests of alternators, synchronous motors and converters, induction motors and transformers.

Three hours per week (one-half class).—First and second terms.

Text Books:—Testing of Dynamos and Motors, Chas. F. Smith; Practical Alternating Current Testing, Chas. F. Smith.

119. *Electrical Engineering Laboratory* for Fourth Year students in Mechanical Engineering. Includes tests of alternators, synchronous motors and converters and experiments on variable current flow in circuits of different kinds.

Two hours per week.—First and second terms.

6. English Composition.

LECTURER:—G. W. LATHAM, B.A.

131. In view of the importance of accuracy of expression in the case of those engaged in scientific or professional work, a course on English Composition is prescribed for all undergraduates of the First Year. Students who give evidence of having already reached the required standard of proficiency, by passing a special exemption examination, may be excused from attendance on this course. This special examination will be held in the Molson Hall on Saturday October 1st at 11 o'clock.

Students who are required to take this course will be assigned to a section which will meet weekly for practice and instruction in composition.

Satisfactory results in class and essay work must be obtained before entry into the Second Year. All undergraduates of the First Year, whether exempt or not from attendance on the course, must pass the final examination.

132. *Summer Reading.* (See page 191.)

135. English. (Dep't. of Railways. See page 276.)

138. English. (Dep't. of Railways. See page 278.)

7. Freehand Drawing, Lettering, etc.

ASSOCIATE PROFESSOR:—H. F. ARMSTRONG.

155. In the *Freehand Course*, the object is to train the hand and eye so that students may readily make sketches from parts of machinery, etc., either as note book sketches, diagrams, perspective drawings in light and shade, or as preparatory dimensioned sketches from which to make scale drawings.

156. In the *Lettering Course,* plain block alphabets, round writing, and titles, such as are chiefly in use in draughting offices will be dealt with. In this course, also, tinting, tracing blue printing and simple map drawing will be included.

8. Geology and Mineralogy.

PROFESSOR:—F. D. ADAMS, PH.D., D.Sc., F.R.S.
ASSISTANT PROFESSOR:—J. AUSTEN BANCROFT, Ph.D.
LECTURERS:—R. P. D. GRAHAM, M. Sc.
JOHN STANSFIELD, B.A.
SESSIONAL LECTURER:—ALFRED BARLOW, M.A., D.Sc.

The courses are arranged as follows:—

Third Year.

141. *General Geology.*—The lectures will embrace a general survey of the whole field of Geology, and will be introduced by a short course on Mineralogy. Especial attention will be devoted to Dynamical Geology and to Historical Geology, including a description of the fauna and flora of the earth during the successive periods of its past history, as well as to the economic aspects of the subject.

The lectures will be illustrated by the extensive collections in the Peter Redpath Museum, as well as by models, maps, sections and lantern slides. In addition to the lectures there will be a demonstration each week.

Text Book:—Scott, An Introduction to Geology.

142. *Mineralogy.*—The lectures and demonstrations, illustrated by specimens and models, deal mainly with the description and means of identification of species, special attention being paid to the ores and economic minerals and to those which are important as rock constituents. The earlier lectures are devoted to a brief discussion of the geometrical and physical properties of minerals; their chemical composition; calculation of formulæ, etc.; and the principles of classification.

143. *Determinative Mineralogy.*—Laboratory practice in blow-pipe analysis and its application to the determination of mineral species.

Fourth Year.

146. *Petrography.*—The modern methods of study employed in Petrography are first described, and the classification and description of rocks is then taken up.

In addition to the lectures, one afternoon a week during the second term will be devoted to practical work in the Petrographical Laboratory.

147. *Advanced Petrography.*—This is a more advanced course than 146. In addition to the lectures an afternoon throughout the year will be devoted to practical work in the Petrographical Laboratory.

Text Book:—Harker's Petrology for Students.

Petrographical Laboratory. — See page 354. This laboratory is open to Fourth Year Mining students.

148. *Ore Deposits and Economic Geology.*—The nature, mode of occurrence and classification of ore deposits will first be taken up. A series of typical occurences will then be described and their origin discussed. The more important non-metallic materials, *e,g.*, fuels, clays, abasive materials, building stones, etc., will be similarly treated as well as questions of water supply, artesian wells, etc. The structure of the earth's crust, more es pecially with reference to folding, faulting and igneous intrusion in their bearing upon mining will then be con sidered and the course will close with a discussion of the methods employed in carrying out geological and magnetic surveys, and in the construction and interpretation of geological maps and sections.

The course will be illustrated by maps, models, lantern slides and specimens

Text Books:—Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States and Canada; Phillips and Louis, A Treatise on Ore Deposits; Beck and Weed, The Origin and Nature of Ore Deposits.

Books of Reference:—The Reports of the Geological Survey of Canada, and the Publications of the U. S. Geological Survey.

149. *Geology of Canada.*—A general description of the Geology and mineral resources of the Dominion.

150. *Physical Geography and Climatology.*—Geographical subdivisions of Canada; mineral areas; timber belts; wheat areas and water powers; irrigation; climatology and its relations to occupations and soil products.

This is a special course provided for the Fourth Year students in the Department of Railways. It will be illustrated by maps, models and lantern slides.

151. *Crystallography.*—A short course of lectures for students in Chemistry, with laboratory practice in the measurement and drawing of crystals; calculation of axial ratios, etc.; use of the polarising microscope, axial angle apparatus, etc.

152. *Historical Geology.*—This is a continuation of course 141, and will consist of lectures, colloquia and museum work extending throughout the session.

153. *Field Work.*—The students in mining will receive a course of instruction in geological mapping and field work—extending over one week—in connection with the summer school of mining.

NOTE.—Students of the Mining and Chemistry courses take all the Mineralogy of the Third Year. Chemistry students, in addition to the Geology of the Third Year, may take the Mineralogy of the Fourth Year.

9. Law and Economics.

PROFESSOR OF LAW:—F. P. WALTON, B.A., LL.B., LL.D.
PROFESSOR OF ECONOMICS:—S. B. LEACOCK, Ph.D.
ASSISTANT PROFESSOR OF ECONOMICS:—J. C. HEMMEON, Ph.D.
HONORARY LECTURER IN ENGINEERING ECONOMICS:—
ROBERT A. ROSS, ESQ.

171. *Engineering Economics.*—This course is intended to familiarise the engineering student with the business aspect of his profession. With this in view, lectures will be given on

the subjects of barter and sale; money and credit; the formation, organization and financing of companies; analysis of balance sheet; operating and fixed charges; estimates; specifications and contracts.

MR. ROSS.

172. *Economics.*—(Department of Railways. See p. 278).

DR. LEACOCK.

175. *Engineering Law.*—This course is intended to present such an outline of the law as will be useful to engineers and business men. Among the main topics may be mentioned the general law of contracts; commercial paper; sale; lease; agency and partnership; joint stock companies; insurance; carriers by land and sea.

DR. WALTON.

176. *Railway Law.*—(Department of Railways. See p. 279).

DR. WALTON.

177. *Railway Economics.*—(Department of Railways. See p. 278.)

DR. HEMMEON.

10. Mathematics.

PROFESSOR:—D. A. MURRAY, PH.D.
ASSISTANT PROFESSOR:—T. RIDLER DAVIES, B.A.
LECTURERS:—C. T. SULLIVAN, M.Sc.; L. N. RICHARDSON, M.A., M.Sc.; C. BATHO, M.Sc.; J. N. FINLAYSON, M.Sc.; A. G. HATCHER, M.A.

The work in this department is conducted from the outset with special reference to the needs of students of applied science. Much time is given to practice in the use of mathematical tables, particular attention being paid to the tracing of curves, graphical illustrations and solutions, methods of computing, approximations, etc.

The courses of study are as follows:—

191. *Geometry.*—Exercises in Plane Geometry, including loci, transversals, etc., elements of Solid Geometry and of

Geometrical Conic Sections. First Year (first term). Text Book:—Wilson's Solid Geometry and Conic Sections (Macmillan).

192. *Algebra.*—Miscellaneous theorems and exercises, exponential and other series, properties and solution of higher equations, complex numbers and vector algebra, graphical algebra with an introduction to Analytic Geometry, indeterminate forms, limits, derivatives, slopes of curves. First Year (first and second terms). Text Books:—Wentworth's College Algebra (Ginn & Co.), Tanner and Allen's Analytic Geometry (American Book Co.)

193. *Trigonometry.*—Plane and Spherical. First Year (second term). Text Book:—Murray's Plane and Spherical Trigonometry, with tables (Longmans.)

194. *Mechanics.*—An elementary course in dynamics, statics, and hydrostatics. First Year (first and second terms). Text Book:—Loney's Mechanics and Hydrostatics for Beginners (Cambridge University Press).

197. *Analytic Geometry.*—The point, straight line, circle parabola, ellipse and hyperbola, elements of geometry of three dimensions. First Year (latter part of second term), and Second Year (first term). The Second Year work begins with the circle. Text Book:—Tanner and Allen's Analytic Geometry (American Book Co.).

198. *Calculus.*—Differentiation of functions of one or more variables, successive differentiation, tangents, etc., multiple points, asymptotes, curvature, maxima and minima, integration, with applications to areas, volumes, moments of inertia, etc. Second Year (first and second terms). Text Book:—Murray's Differential and Integral Calculus (Longmans).

201. *Calculus.*—Various applications, elementary differential equations. Prescribed for Electrical Engineering students of the Third Year; optional for all others. (First and second terms).

83,86 *Mechanics.*—For courses in Second and Third Year Mechanics, see CIVIL ENGINEERING and APPLIED MECHANICS, page 235.

11. Mechanical Engineering.

PROFESSOR:—R. J. DURLEY, Ma.E.

ASSISTANT PROFESSORS:—C. M. MCKERGOW, M.Sc.; A. R. ROBERTS, M.Sc.

LECTURERS:—J. BLIZARD, B.Sc.; C. J. CHAPLIN, M.Sc.

DEMONSTRATORS:—C. A. HODGE, B.Sc.; ———

DRAUGHTSMAN:—P. F. JOHNSON.

SHOP INSTRUCTORS:—G. WOOLEY; J. STEWART; H. LANE; A. W. MILLER.

FIRST YEAR.

211. *Mechanical Drawing and Designing.*—Three hours per week. Required of all Engineering students. Elementary principles of mechanical drawing and draftsmanship; preparation of working drawings and tracings of simple machine details.

In connection with this work a brief course of lectures is given upon drafting room methods and standards, and the elementary considerations in the design and construction of, and selection of materials for, simple machine parts.

Shopwork.—The course in shopwork is intended to afford some preparation for that study of workshop practice on a commercial scale which every engineer has to carry out for himself. With this end in view, the student works in the various shops of the department, and completes in each a series of practical exercises. He thus obtains some knowledge of the nature and properties of the various materials he employs; he receives systematic instruction in the use and care of the more important hand and machine tools; and he acquires some manual skill.

The instruction thus obtained must, however, be continued and supplemented. *For this purpose students are expected to spend the greater portion of each long vacation in gaining practical experience in engineering workshops outside the University.*

Throughout the course, advanced students are as far as possible entrusted with the construction and erection of machinery and apparatus which afterwards form part of the equipment of the department. An air-compressor, a boring bar, a belt-testing machine, and a duplex feed pump, are examples of the work which has been done in this manner. Such students are also encouraged to see and assist in the repairs required by the engines, boilers and machine tools in the engineering building.

Students are required to read and make notes of selected portions of certain text-books and articles in technical journals, illustrative of the work done in each shop.

In connection with his shopwork each student is required to keep a record of his work. These records or notes are made on standard forms. These are handed in to the Shop Instructor at the close of each period of work, and, together with diligence and the results of a brief written examination, form the basis on which credit for shopwork is assigned.

The work of the various shops is carried out under the direction of the Professor of Mechanical Engineering.

The work in the shops is supplemented by a brief course of lectures dealing with the processes and tools used in the machine shop. The subject dealt with in this way gives the student a clearer idea of the care and use of the various instruments and tools, and of the performance of the machines.

212. *Carpentry and Wood-turning.*—Sharpening and care of wood-working tools; sawing, planing and paring to size; preparation of flat surfaces, paralled strips, and rectangular blocks; construction of the principal joints employed in carpentry and joiner work, such as end and middle lap joints, end and middle mortise and tenon joints, mitres, and dado and sash joints; dovetailing; scarfing; joints used in roof and girder work; wood-turning; use of wood-turning tools.

213. *Smith-Work.*—The forge and its tools; use and care of smiths' tools; management of fire; use of anvil and swage-block; drawing taper, square and parallel work; bending, upsetting, twisting, punching, and cutting; welding and scarfing.

214. *Foundry-Work.*—Moulders' tools and materials used in foundry work; the cupola; the brass furnace; preparation of moulding sand; boxes and flasks; core-making; use of core-irons; bench moulding; blackening, coring and finishing moulds; vents, gates and risers; floor moulding; open sand work; melting and pouring metal; mixtures for iron and brass casting.

SECOND YEAR.

218. *Mechanics of Machines.*—Three hours per week. Required of all Engineering students.

Kinematics of Machines.—Constrained motion; kinematic pairing; velocity and acceleration in mechanisms; centrodes; analysis and classification of simple mechanisms, including the quadric crank chain, the slider crank chain and various wheel trains; design and involute and epicycloidal wheel-teeth.

Dynamics of Machines.—Work and power; the power and turning effort of prime movers; inertia and kinetic energy of revolving and reciprocating parts of machines.

Text Book:—Durley's Kinematics of Machines (Wiley).

Reference Book:—Kennedy, Mechanics of Machinery (MacMillan).

219. *Mechanical Drawing.*—Required of all Engineering students.

Drafting and tracing of more difficult exercises; and the making of assembly and detail drawings of machine parts. Lectures are given from time to time during the course dealing with drafting room methods, explaination of design and discussion of the reasons for selection of materials.

220. *Machine-shop Work.*—Exercises in chipping; preparation of flat surfaces; filing to straight edge and surface plate; scraping, screwing and tapping; use of scribing block and surface gauge; marking off work for lathes and other machines; turning and boring cylindrical work to gauge; surfacing; screw-cutting and preparation of screw-cutting tools; machining flat and curved surfaces on the planing and shaping ma-

chines; drilling and boring; cutting angles and speeds; dressing and grinding tools.

THIRD YEAR.

224. *Mechanics of Machines.*—Two hours per week. Required of students in Mechanical and Electrical Engineering.

Mechanisms involving chamber crank trains and chamber wheel trains; helical, skew, and worm gearing; relative motion and displacement; the mechanism of the simple slide valve and of expansion valves; solution of valve setting problems; the function and dynamics of engine fly-wheels and governors; elements of engine balancing; friction and lubrication.

Text Books:—Durley's Kinematics of Machines (Wiley); Ewing's Steam Engine (Camb. Univ. Press).

225. *Machine Design.*—Two hours per week. Required of students in Mechanical and Electrical Engineering. Principles of the strength of materials as applied to the design of the parts of machines; fastenings used in machine construction, bolts, screws, keys, cotters, rivets, and rivetted joints; journals and bearings; shafts and couplings.

Text Book:—Spooner's Machine Design (Longmans).

Book of Reference:—Unwin's Machine Design, Part I (Longmans).

Mechanical Engineering.

226. (A) General course in Mechanical Engineering of Power Plants and Prime Movers. Required of all Engineering students except those in Mechanical Engineering. Two hours per week.

Fuel and combustion, steam boilers and steam production; corrosion and defects of boilers; boiler plants and accessories, principles of selection and arrangement; the steam engine—estimation of power developed, economy of steam machinery; the indicator; condensers, pumps and accessories; steam turbines; principles of design in steam plants; gas engines and gas producer plants, their selection, economy and arrangement; general conditions governing location and design of power installations.

Text Books:—Meyer, Steam Power Plants (McGraw); Duncan, Steam and other Engines (Macmillan).

227. (B) Course required of all students in Mechanical Engineering. Two hours per week.

Fuel and combustion; steam boilers and steam production; boiler installation and operation; the indicator; the steam engine, steam distribution and economy; steam turbines; condensers and auxiliary machinery in steam plants; gas engines and gas producer plants.

228. *Mechanical Engineering Laboratory courses.*

Three hours per week. Required of all Engineering students.

(*a*) *Thermodynamic Laboratories.*—Testing and calibration of indicators, brakes and other measuring instruments; tests as to economy and performance of a steam engine and boiler, of a gas engine and of an air compressor.

(*b*) *Mechanical Laboratory.*—Testing and experimental investigation of:—The efficiency of belt and other transmission gearing; the properties of lubricants; the operation of brakes, dynamometers and governors.

Reference Book:—Carpenter, Experimental Engineering.

229. *Thermodynamics.*—Two hours per week.—Required of students in Mechanical and Electrical Engineering.—Fundamental laws and equations of thermodynamics; their application to gases and to vapours, saturated and superheated; efficiency of ideal heat engines; properties of steam, and elementary theory of the steam engine; elementary theory of gas and hot air engines.

Text Book:—Ewing—The Steam Engine and Other Heat Engines—(Camb. Univ. Press).

230. *Mechanical Drawing.* — Summer School. Nine hours per week during Summer Term after conclusion of Second Year Session. Required of Electrical and Mechanical Engineering students.

Exercises in making sketches of machine parts and in preparing working drawings and tracings from them.

231. *Mechanical Drawing.*—Six hours per week for first term and three hours per week for second term. Required of Mechanical Engineering students. This course is supplementary to the course in Machine Design. It consists of exercises in design and draughting of fastenings, machine parts, simple machines, etc.

232. *Mechanical Drawing.* Three hours per week. Required of Electrical Engineering students. A course similiar to 231, but less extended.

233. *Smith Work.*—(Summer School).—Eleven hours per week for half the Summer Term, after the conclusion of Second Year Session. Required of Electrical and Mechanical Engineering students. Tool forging and tempering, using carbon and high-speed steels; making lathe and planer tools; taps, dies, drills, and tools for the forge; special welding.

234. *Foundry Work.*—(Summer School).—For same period as 233. Required of Electrical and Mechanical Engineering students. Moulds requiring a higher degree of skill and judgment; special methods of strengthening the mould; coating for smooth surfaces on castings; methods of avoiding defects; cupola charging and operating; core mixtures and core making; coring moulds.

In connection with 233 and 234 trips are taken by the class under the guidance of the instructors to local manufacturing works in order that the students may observe the operations and methods carried out in a commercial way.

235. *Pattern Making.*—Use of pattern-makers' tools; elements of pattern-making; allowances to be made for draught and for contraction in moulding and casting; use of contraction rule; preparation of prints and plain core-boxes; exercises in paring and turning; construction of patterns and core boxes for pipes, flanges, elbows, tees and valves; more difficult exercises in pattern-making, including built-up patterns and face-plate work; gear and wheel patterns.

236. *Machine Shop.*—Special attention devoted to lathe work; marking off; centering; turning and boring; radial fac-

ing; filing; grinding and polishing; internal and external screw cutting; change gear calculations; taper turning.

FOURTH YEAR.

240. *Mechanics of Machines.*—Two hours per week. Required of students in Mechanical Engineering.

(A) Gyrostatic action in machines; further treatment of engine governors; primary and secondary balancing of engines; knocking and shocks in reciprocating machinery; vibration; valve gears.

(B) The principles underlying the stability and weight supporting power of curved and plane surfaces driven through the air at high velocities together with the power required to maintain these velocities are studied and the designs of such machines used for purposes of illustration.

Reference Books:—Dalby's Balancing of Engines; Spangler's Valve Gears; Lanchester's Aerodynamics.

241. *Designing.*—Six hours per week. Required of students in Mechanical Engineering.—The complete design of a more complex machine, such as a steam engine, a pump, or a machine tool, is worked out, and the requisite working drawings and tracings are prepared.

242. *Machine Design.*—Two hours per week. Required of Mechanical Engineering students.

First Term.—Design of power transmission gearing, including belts, ropes, friction, chain and toothed gearing; fits and fitting; pipes and pipe joints.

Second Term.—Engine details including cylinders, piston rods, connecting rods, shafts, flywheels, and machine frames.

243. *Machine Design.*—Two hours per week during first term. Required of Electrical Engineering Students.

Course same as 242, First Term.

244. *Mechanical Engineering.*—Two hours per week.

First Term.—Arrangement, design and operation of Power Plants worked by steam or gas engines; effect of requirements for lighting, heating and power distribution; pumping, air compressing and refrigerating machinery.

Second Term.—A student may elect one of the following courses:—

245. *Locomotive Engineering.*—Train resistance, tractive force in locomotives; locomotive performance and rating; brakes; fuel and water in locomotive work.

246. *Marine Engineering.*—Ship resistance and propulsion; efficiency and performance of marine machinery and propellers; arrangement and operation of main and auxiliary machinery for marine work.

247. *Heating and Ventilation of Buildings.*—Loss of heat from buildings, radiating surfaces; design and operation of heating systems; principles of ventilation; fans and blowers; design of duct systems; temperature and humidity control.

Text Books:—Meyer, Steam Power Plants (McGraw); Henderson, Locomotive Operating (Railway Age); Seaton, Marine Engineering (Griffin); Carpenter, Heating and Ventilating.

Books of Reference:—Parson, Steam Boilers; Dowson and Larter, Producer Gas (Longmans); Taylor, Resistance of Ships (Whittaker).

249. *Mechanical Engineering Laboratory.*—Twelve hours per week. Required of students in Mechanical Engineering.

(*a*) *Thermodynamic Laboratories*:—Experimental investigations illustrating the theory of steam engines, gas engines and producers; efficiency and action of steam jackets and condensers; efficiency of air compressing and pumping machinery; tests of a complete steam or gas power plant.

(*b*) *Mechanical Laboratory.*—Experimental work on:—Engine balancing and vibration; action of governors; performance of fans and blowers; power absorbed by machine tools; efficiency of hoisting machinery.

250. *Mechanical Engineering Laboratory.*—Six hours per week for first term. Required of Electrical Engineering students.

The work in this course includes the study of the relative economy of throttling and expansion governors. The effect on the economy of a steam engine resulting from making com-

pound, triple and quadruple expansion and tests on boilers, producer gas engines, air compressors, and a complete test of a power plant.

Credit for work done in the Laboratories is dependent on the presentation of clear and accurate reports of the experimental and other work performed by the student.

Text-Book:—Carpenter, Experimental Engineering.

251. *Thermodynamics.*—Two hours per week. Required of students in Mechanical Engineering.—Theory of reversed heat engines and refrigerating machines; entropy and entropy-temperature diagrams; more advanced theory of internal combustion engines; a thermodynamic study of the steam engine, including the behaviour of steam in the cylinder; economy of steam engines influence of size, speed, and rate of expansion; compound expansion; the steam jacket; the testing of steam engines; flow of gases and vapours; theory of steam turbines. The whole course is carried out as far as possible in connection with the experimental work of the Mechanical Engineering Laboratories.

Text Books:—Ewing's Steam Engine (Cambridge Univ. Press); Moyer, Steam Turbines (Wiley); Marks and Davis, Steam Tables and Diagrams (Longmans).

Books of Reference:—Stodola, The Steam Turbine (trans. Lowenstein), (Van Nostrand); Jude, Theory of the Steam Turbine (Griffin).

252. *Machine Shop.*—Experimental work and studies for the minimum time required for production, involving a consideration of best available machine tool speeds, necessary power of belting, most efficient tool angles, quality of metal and the kind of tool steel used. The course includes such work in connection with the lathe, the planer, slotter, shaper, miller and turret lathe; and instruction in gear cutting and cutter grinding.

252a. *Shop Management.*—One hour a week for one term. The objects of a system of management applied to a manufacturing plant; organization of staff, distribution of duties; essential features; stock-keeping, time-keeping, inspecting and

routeing work. Sources of inefficiency and waste; organization and duties of cost department; distribution of general expenses; uses of records in estimating etc; methods of paying wages; time, piece work, co-operative and bonus systems; successful modern types of management; reorganization of plants: apprenticeship courses.

12. Metallurgical Engineering and Metallurgy.

PROFESSOR:—ALFRED STANSFIELD, D.Sc., A.R.S.M.
DEMONSTRATOR:—S. W. WERNER.
RESEARCH FELLOW:—GORDON St. G. SPROULE, M.Sc.

THIRD YEAR.

261. *General Elementary Metallurgy.*—The lectures include:—(1) A short account of the properties, composition and uses of the common metals and alloys. (2) A course on *Fuel,* including the properties and uses of solid, liquid and gaseous fuels; the preparation of artificial fuels such as charcoal, coke and producer gas; pyrometry, calorimetry, refractory materials and furnaces. (3) An outline account of the metallurgy of iron, steel, copper and lead.

Two lectures a week during first term for Metallurgical, Mining and Chemical students.

Text Books:—A. H. Sexton, "Fuel and Refractory Materials;" Huntington and McMillan, "Metals, their properties and treatment."

262. *Metallurgical Laboratory.*—One period a week during the first term for Metallurgical students. The course includes instruction in pyrometry, calorimetry and the microscopic examination of metals.

263. *Fire Assaying, Part I.*—The lectures and instruction sheets give an account of the furnaces, balances and other appliances used in assaying; the sampling and preparation of ores; fluxes and reagents, and the methods used in assaying gold, silver and lead ores, copper and copper ores and mattes; gold and silver bullion and base bullion; cyanide precipitates and solutions.

In the laboratory the students learn as many of these methods as are possible in the time allotted to this course. Care is taken that a student shall be able to make such assays as would be required at a mine, and with a fair degree of accuracy. Metallurgical and mining students usually have an opportunity of doing additional fire-assaying in their Fourth Year.

Two afternoons a week during the first term, for Metallurgical, Mining and Chemical students.

Reference Books:—R. W. Lodge, "Notes on Assaying;" C. H. Fulton, "Manual of Fire-Assaying."

264. *Fire-Assaying, Part II.*—In this course the remainder of the above assay-methods are practised and the student is given the opportunity of acquiring greater accuracy and speed and the ability to run a number of assays at the same time. The course is designed to fit students for entering an assay office at a smelter or refinery. The course may be taken in the Third or Fourth Years, and is required of all Metallurgical students except those who specialize in iron and steel.

265. *Metallurgical Calculations.*—This is an introductory course on the application of exact chemical and physical laws to metallurgical operations such as the combustion of fuel, the smelting of ores and the construction and heating of furnaces.

One lecture a week for Metallurgical students.

Text Book:—J. W. Richards, "Metallurgical Calculations," Vol. I.

266. *Colloquium.* — Metallurgical students have certain hours for reading in the library. They are required to read current metallurgical periodicals and to give an account of their reading at the Colloquium which is held once a week.

267. *Summer School (Metallurgical Works).*—Metallurgical students accompany the Mining students on the summer school which is held at the end of their Third Year (see page 190.) In this school, visits are paid to metallurgical works and mines. Field geology is also studied. Metallurgical students

are allowed to devote their whole time to the metallurgical, ore-dressing and geological portions of the school.

In addition to this, excursions may be made by the class from time to time to such metallurgical works as are within reach.

A short course of lectures is given in the second term for Metallurgical students as a preparation for the field work in Metallurgy.

FOURTH YEAR.

271. *Metallurgy (General).*—A course of two lectures a week during the session; including:—(*a*) A few lectures in explanation of the laboratory work (273).

(*b*) *The Metallurgy of Iron and Steel,* including an account of iron ores and their preparation; the iron blast furnace, its construction and operation; pig iron and its properties; wrought iron, its manufacture and properties; crucible, Bessemer and open-hearth steel making; the properties and heat treatment of steel.

Text Book:—Bradley Stoughton, "The Metallurgy of Iron and Steel."

Reference Books:—Forsythe, "The Blast Furnace" H. O. Hofman, "Metallurgy of Iron and Steel"; T. Turner "Metallurgy of Iron"; H. M. Howe, "Metallurgy of Steel"; H. H. Campbell, " Manufacture and Properties of Iron and Steel."

(*c*) *The Metallurgy of Copper, Lead, Gold and Silver.*—In these lectures the production of copper and lead from their ores by furnace methods is considered in detail. The refining of these metals by furnace and electrolytic methods and the parting and refining of gold and silver are treated in outline.

(*d*) *For Mining Students,* a part of course 275 is included under this head and occupies one additional hour a week in the second term.

Text Books:—E. D. Peters, "Principles of Copper Smelting"; H F. Collins, "Metallurgy of Lead.".

Reference Books:—E D. Peters, "Modern Copper Smelting"; H. O. Hofman, "Metallugy of Lead"; H. F. Collins, " Metallurgy of Silver "; T. K. Rose, " Metallurgy of Gold."

272. *Metallurgy* for Metallurgical students.

Two hours a week during the session.

The course will include some or all of the following:—

(*a*) *Alloys.*—The theory of solutions applied to metals and metallic alloys; composition, manufacture and uses of the common alloys.

(*b*) *Metallurgical Calculations.* — A continuation of course 265, applying mathematical treatment to the more important metalurgical processes and furnaces.

(*c*) *Metallurgy of Zinc, Nickel, Cobalt, Platinum, etc.*

(*d*) *Electro-Metallurgy.*—The electrolytic separation and refining of copper, lead nickle, gold, silver, etc.

(*e*) *Hydro-Metallurgy* of copper, silver, nickel, etc.

(*f*) *Metallurgical Construction and Design.*

(*g*) *Specifications and Testing* of steel and other metals, refractory materials, fuels, etc.

(*h*) *Costs of Metallurgical Plant and Operations.*

273 *Metallurgical Laboratory, Part I.*—One period per week in the first term for Metallurgical and Mining students.

The following metallurgical exercises will be carried out, as far as time will permit, either as demonstrations, individual work, or work in groups:— (*a*) Roasting a sulphide or arsenical ore on a small scale and also in the large roasting furnaces; (*b*) formation and properties of copper or lead mattes and slags; (*c*) smelting a copper or lead ore in the water jacketed blast furnace; (*d*) melting and casting certain metals and alloys; (*e*) the use of the electric furnace; (*f*) leaching a copper or silver ore; (*g*) elementary exercises in some of the following:—pyrometry, calorimetry, flue gas analysis, tests of refractory materials, microscopic examination of metals, heat treatment of iron or steel.

Students of Metallurgical Engineering spend four or five periods during the first term in the Hydraulic laboratory These periods are taken from courses 273 and 300.

274. *Metallurgical Laboratory Part II.*—Three periods a week during the second term for Metallurgical students. This time is devoted to the serious study of some metallurgical

problem. Usually two students work together and present a thesis containing an account of important published work bearing on their subject, as well as the result of their own experimental researches.

(*For description of Metallurgical and Assaying Laboratories, see page* 35).

275. *Electro-Metallurgy.* — This course of lectures is restricted to a consideration of the principles and construction of electric furnaces, and their uses for smelting and refining metals. Other parts of the subject are treated in the lectures on Electro-chemistry (see Chemistry, page 233) and in course (412). Two lectures a week during the second term for Metallurgical, Electrical and Chemical students.

Text Book:—A Stansfield, "The Electric Furnace."

276. *Electro-Metallurgy Laboratory.*—One period a week for students taking course 275. The work is arranged to illustrate the lectures. Groups of students operate each of the main types of electric furnace and become familiar with some of the principles of electric furnace construction and design.

277. *Colloquium.*—One hour a week during the session is given to informal discussion of research and other work being done in the department, and to other topics of metallurgical interest.

278. *Metallurgical Machinery and Design.*—This course includes lectures on metallurgical machinery and design and two periods a week in the drafting room is devoted to drafting and designing metallurgical furnaces and plants.

13. Mining Engineering.

PROFESSOR:—JOHN BONSALL PORTER, E.M., PH.D., D.Sc. (HON.).
ASSISTANT PROFESSOR:—JOHN W. BELL, M.Sc.
DAWSON FELLOW IN MINING:—GEORGE A. GILLIES, B.Sc.
DEMONSTRATOR:———————
DOUGLAS RESEARCH FELLOWS:— { G. G. GIBBINS, B.Sc. / J. S. L. BRUNTON, B.Sc.
SPECIAL RESEARCH ASSISTANT:—EDGAR STANSFIELD, M.Sc. (VICTORIA).
SPECIAL RESEARCH SCHOLAR:—J. RAFFLES COX, B.Sc.

THIRD YEAR.

291. *Mining Engineering.—The principles and practice of mining.*—Prospecting, simple mining methods, excavation, ex-

plosion and blasting, rock drills, coal cutters, gold washing and dredging, hydraulic mining, quarrying, etc. Two lectures per week in the second term. This course is continued in the Fourth Year. (See 297).

292. *Ore Dressing.—The theory and practice of ore dressing and coal washing.*—The forms in which ores occur and the effect of mixture, impurity, etc.; the theoretical considerations affecting mineral separations; the general mechanical operations involved. Dressing Machinery—breakers, stamps, rolls, screens, jigs, vanners, tables, washers, buddles, magnetic separators, etc. (Two lectures per week in the second term and laboratory. This course is continued in the Fourth Year. (See 299.)

293. *Ore Dressing Laboratory.*—Simple tests of ores, sands and gravels, by means of pan, vanning, shovel, hand jig, magnet classifier, etc. (One afternoon per week in the second term. Further laboratory work in the Fourth Year (See 300 and 301.)

FOURTH YEAR.

297. *Mining Engineering.—The principles and practice of mining.*—Prospecting, deep wells, diamond drilling, open cast mining, shaft sinking drifting, underground development, methods of mining, timbering, hauling, hoisting, draining, pumping, lighting, ventilating, etc.; mine accidents and their prevention; general arrangement of plant, administration stores and dwellings; examination and valuation of mines and mineral properties and mine reports. (Three lectures a week).

298. *Mining and Ore-Dressing Machinery and Design.—The application of mechanical and electrical engineering to mining, ore dressing and metallurgy.*—Machinery for haulage, hoisting, pumping, ventilating, etc.; mine power plants, power transmission, tramways, cable ways, compressors, blowing engines, conveyors, cranes, etc.; mine and mill buildings, head frames, ore bins, lay out of plant, etc. One lecture a week and two drafting room periods in the second term for all

students in course and one additional lecture per week for students taking alternative (*b*).

299. *Ore Dressing and Milling.*—Continuation of the ore dressing course of the Third Year; concentration plants, coal breakers and washers, dry concentration, amalgamation, gold and silver milling, cyaniding, chlorinating, etc. (Three lectures a week in the first term.)

302. *Mining Colloquium.*—One hour a week is given to informal discussion of the work being done in the department and to other matters relating to mining and ore dressing. Students are required to take the leading part in these discussions.

300. *Ore Dressing and Metallurgical Laboratory.*—Two mornings per week in the first term are given to the ore dressing hydraulic and metallurgical laboratories. This time is chiefly given to ore dressing and metallurgy, and certain typical operations in each are carried out. The set exercises in ore dressing are a continuation of the Third Year laboratory work and comprise a series of experiments in crushing, classifying, jigging, slime treatment, magnetic separation, cyanidation and amalgamation, and include a complete trial run of the five-stamp battery on a free milling gold ore.

(Students taking the geological alternative give one morning per week in the first term to Petrographical laboratory and only one to Ore Dressing, Metallurgy, etc., as above.)

301. *Ore Dressing Laboratory and Thesis Work.*—In the second term one whole day and one additional morning are given to individual laboratory work and to the preparation of a thesis to be filed in the departmental library and, when practicable, published.

The subjects available for thesis work are very numerous and range from purely theoretical investigations in crushing, screening, classification, concentration, etc., to the experimental determination of the best methods for the treatment of particular ores and coals. Over one hundred and twenty-five different lots of ore are available, and the quantities are

sufficient for work on a comparatively large scale. New ores are constantly being secured.

Advanced Courses.—Special courses of instruction are offered to graduate students in Mining and Ore Dressing. These courses include lectures, colloquia or individual work in the laboratories and drafting room.

Text Books:—Students are also recommended to freely consult the following works of reference, in addition to the special references given from time to time:—Sir C. LeNeve Foster's Ore and Stone Mining; Mayer's Mining Methods in Europe; H. W. Hughes' Text Book of Coal Mining; Boulton's Coal Mining; Behr's Winding Plants for Great Depths; Saunders' Mine Timbering; W. H. Storms' Timbering and Mining; R. H. Richard's Ore Dressing; T. A. Rickard's Stamp Milling of Gold Ores and Sampling and Estimation of Ore in a Mine; H. Louis' Handbook of Gold Milling; T. K. Rose's Metallurgy of Gold; M. Eissler's Metallurgy of Gold; H. F. Collins' Metallurgy of Silver; James' Cyanide Practice; Julian and Smart's Cyaniding Gold and Silver Ores; The Coal and Metal Miners' Pocket-book; Text Book of Ore Dressing by R. H. Richards; Manual of Mining by M. C. Ihlsung; The Principles of Mining by H. C. Hoover.

Laboratories.

During the first three years of the course the students do systematic work in the workshops and laboratories of the other departments. During the Third and Fourth Years they spend a large proportion of their time in the special laboratories for ore dressing and metallurgy. See pp. 351 and 352). In these laboratories the general method of instruction is first to conduct a limited number of important typical operations, and then to assign to each student certain methods which he must study out in detail, and upon which he must experiment and make written report. In this work he is guided by the professors and demonstrators, and assisted by

the other students, whom he must in turn assist when practicable. In this way every student acquires detailed knowledge of certain typical operations and a fair general experience in many of the important methods in use.

Illustrations, Museums, Societies, Etc.

In addition to a large series of lantern slides, the department owns a collection of over four thousand photographs and other illustrations. This collection is constantly being enlarged.

The Museums of the building contain suites of ores, concentrates, fuels and metallurgical materials, models of mines and furnaces, and collections of finished products.

The McGill University Mining Society meets weekly or fortnightly to read and discuss papers by graduate and student members, and from time to time to hear lectures given by gentlemen eminent in the profession. Special arrangements have been made whereby students may attend meetings of the mining section of the Canadian Society of Civil Engineers, and members of the Mining Society are privileged, for a nominal fee, to become student members, and to receive all the publications of the Society.

The Society has also been made a students' section of the Canadian Mining Institute, and its undergraduate members are therefore student members of the Institute, and receive all its publications. Papers read before the Mining Society may be entered in competition for any students' prizes offered by the Canadian Mining Institute. (See pp. 69 and 189.)

Field School in Mining.

294. The summer vacation class instituted in 1898 is now a fixed part of the course. All students of Mining in regular course are required to attend this class at the end of the Third Year.

The school lasts about six weeks. Of this period about one-sixth is given to field work in geology, one-half or more to mining work proper, and the remainder, when practicable, to an examination of ore dressing and milling plants and metallurgical establishments. The Professor of Mining and his assistant go with the party and hold daily demonstrations or classes. The students take notes and sketches on the ground, and afterwards are required to work up these notes and to submit a formal report on some part or the whole.

The work in geology and metallurgy is carried on by officers of these departments, who attend the school for this purpose, and in certain cases it is found practicable to permit students especially interested in these subjects to substitute additional work in them for a portion of the mining.

During the last twelve years these field parties have visited British Columbia four times, Nova Scotia four times, Pennsylvania twice, Michigan, Newfoundland and Ontario once each. In 1909 the work was done in the Asbestos district of Quebec and in the gold, iron and coal regions of Nova Scotia. A section of the party also visited Newfoundland.

The instruction given during this field course is free to all Mining students, the only expense to them being the cost of board, lodging, and railway fares. These expenses are kept as low as is practicable and are in part met by the income of a fund provided by Sir William Macdonald, from which deserving students who require aid can also have money advanced them by applying to the Professor of Mining.

At the close of the regular work of the field school arrangements are made with the managers of the mines visited and others to give the members of the party individual employment for the remainder of the summer. All students are earnestly advised to engage in such work, and it is probable that it will be made obligatory at an early date in the future.

14. Physics (Experimental.)

PROFESSORS :— H. T. BARNES, D.Sc., *Director.*
HAROLD A. WILSON, M.A., D.Sc., F.R.S.

ASSISTANT PROFESSOR :—H. L. BRONSON, Ph.D.

LECTURERS :— F. H. DAY, M.Sc.
N. R. GILLIS, M.Sc.

DEMONSTRATORS :— G. St. G. SPROULE, M.Sc.
A. L. DICKIESON, M.Sc.
N. E. WHEELER, B.Sc.
A. N. SHAW, M.Sc.
A. G. HATCHER, M.A.

The instruction includes a fully illustrated course of experimental lectures on the general principles of Physics (embracing, in the First Year, *The Laws of Energy—Heat, Light, and Sound;* in the Second Year, *Electricity and Magnetism*), accompanied by courses of practical work in the laboratory, in which the students will perform for themselves experiments, chiefly quantitative, illustrating the subjects treated in the lectures. Opportunity will be given to acquire experience with all the principal instruments used in exact physical and practical measurements.

311. FIRST YEAR.—Lecture course. Two hours per week. For syllabus, see under Third Year Arts.

312. Laboratory Course.—Three hours per week, spent in practical measurements in the Macdonald Physical Laboratory in conjunction with the lecture courses and in accordance with the following outline :—

Heat.—Calibration of thermometers; boiling point; air thermometer; expansion of solids, liquids and gases; calorimetry; latent heats.

Sound.—Velocity of sound; determination of rates of vibration of tuning forks; resonance; laws of vibration of strings.

Light.—Photometry; laws of reflection and refraction; focal lengths and magnifying powers of mirrors, lenses, telescopes and microscopes; the sextant; spectroscope, spectrometer, optical bench.

Text Books:—Watson (Longmans); Tory and Pitcher, Laboratory Manual.

315. SECOND YEAR.—Lecture course, two hours per week. For syllabus see under Fourth Year Arts.

316. Laboratory course, three hours per week. *Magnetism and Electricity.*—Measurements of pole strength and moment of a magnet; the magnetic field; methods of deflection, and oscillation; comparison of moments and determination of the elements of the earth's magnetism.

Current Electricity.—A complete course of measurements of current strength, resistance, and electromotive force; calibration of galvanometers.

Text Books:—Whetham's Experimental Electricity; Tory and Pitcher, Laboratory Manual.

317. An additional course, involving four laboratory periods per week with lectures, will be given in May and June for students in Electrical and Mechanical Engineering.

320, 321. THIRD YEAR.—Students of Electrical Engineering will continue their work in the Physical Laboratory in the Third Year. The following is a brief outline of the course:—

Magnetic elements and measurements; testing magnetic qualities of iron; theory and practice of absolute electrical measurements; comparison and use of electrical standards of resistance, E. M. F., self and mutual-induction, and capacity; principles of construction of electrical instruments; testing and calibration of ammeters and voltmeters; insulation and capacity tests; electrometers and ballistic methods testing for capacity and rate of discharge; electric light photometry; alternating currents.

322. FOURTH YEAR.—Students of Electrical Engineering will take a course of lectures in Electrical Theory.

323. *Advanced Courses and Research.*—For advanced courses of lectures see under Honour courses in Arts.

The following are some of the sections in which special provision has been made for advanced practical work:—

Heat.—Thermometry:—Comparison and verification of deli-

cate thermometers; air thermometry; measurement of high temperatures; electrical resistance thermometers and pyrometers; thermo-electric pyrometers; optical pyrometers.

Calorimetry:—Mechanical equivalent of heat; variation of specific heat and temperature; latent heat of fusion and vaporisation; heat of solution and combustion; electrical methods; radiation and conduction of heat with special methods and apparatus; viscosity; surface tension.

Light.—Photometric standards; spectro-photometry; spectroscopy and spectrum photography; compound prism spectrometers; six inch and 2½ inch Rowland gratings; study of spectra of gases; fluorescence and anomalous dispersion, polarimetry, Landolt and other polarimeters; optical properties of crystals.

Sound.—Velocity in gases and various media; absolute determinations of period; harmonic analysis of sounds; effects of resonance and interference.

Electricity and Magnetism.—Magnetic properties of iron and alloys; influence of stress and torsion; influence of temperature; effects of hysteresis; magneto-optics; other effects of magnetisation; diamagnetism; electrical standards and absolute measurements; calibration of electrical instruments; insulation and capacity testing; electrometer and ballistic methods; temperature, variation of resistance, and E.M.F.; thermoelectric effects; electrolysis; chemistry of primary and secondary batteries; resistance of electrolytes; polarisation; electric discharge in gases and high vacua; dielectric strength; behaviour of insulators under electric stress, specific inductive capacity; alternating currents; electrical waves and oscillations.

Radioactivity.—The Laboratory possesses a considerable stock of radium, and a large amount of apparatus originally designed by Professor Rutherford for investigations in this subject. During the second term a course of lectures in Radioactivity will be delivered by Professor Eve.

15. Surveying and Geodesy.

PROFESSOR:—C. H. McLEOD, Ma. E.
ASSISTANT PROFESSOR:—J. B. HARVEY, M.Sc.
LECTURER:—E. O. TEMPLE PIERS, B.Sc.
DEMONSTRATORS:—

This course is designed to give the student a theoretical and practical training in the methods of plane and geodetic surveying, in the field work of engineering operations, and in practical astronomy. The lecture course is divided as follows:—

346. SECOND YEAR.—Chain and angular surveying; the construction, adjustment, use and limitations of the transit, level, micrometer, compass and minor field and office instruments; topography; levelling; contour surveying; railway circular curves; planimeter and pantograph; general land systems of the Dominion and Provinces. Mr. Harvey.

352. THIRD YEAR.—Theory and use of instruments; hydrographic surveying; the use of the plane table; mining surveying; barometric and trigonometric levelling; elements of practical astronomy. Professor McLeod.

353. THIRD YEAR.—Theory and use of instruments; the use of the plane-table; mining surveying; magnetic surveying; hydrographic surveying; barometric and trigonometric levelling; theory of transition curves; elements of geodetic surveying; elements of practical astronomy. Professor McLeod.

359. FOURTH YEAR.—*Practical Astronomy.* The determination of time, latitude, longitude and azimuth. *Geodesy.*—Figure of the earth, measurements of base lines and triangulation systems; adjustment and reduction of observations. Professor McLeod.

Field Work.—The students are required to carry out the following work:—

347. SECOND YEAR.—(1) A farm survey, using chain and compass; (2) a compass and micrometer survey; (3) a detail survey, using chain and offset; (4) levelling; (5) transit work.

354. THIRD YEAR.—(1) Level and transit practice, including the adjustments of the instruments; (2) a survey and location of a railway line, with determination of topography and contours and subsequent staking out for construction; (3) a stadia survey; (4) a hydrographic survey of a river channel, including measurement of discharge; (5) a survey at night illustrating underground methods; (6) astronomical observations with sextant and engineer's transit.

355. *Mapping.*—See page 277.

361. FOURTH YEAR.—(1) Determination of latitude (*a*) by transit and sextant observations on Polaris, (*b*) by zenith telescope, (*c*) by noon observations with transit and sextant; (2) determination of azimuth, (*a*) by equal altitude observations of the sun, (*b*) by observation of elongation of Polaris, (*c*) by observation of a circumpolar star with engineer's transit, (*d*) by means of solar attachments and solar compass; (3) determination of time, (*a*) by equal altitude observations of the sun with sextant and transit (*b*) by observations of the meridian passage of stars with astronomical transit; (4) determination of longitude by clock comparisons and by lunar observation; (5) base line measurements; (6) precision levelling; (7) measurement of angles by geodetic methods; (8) plane table surveys; (9) special problems in railroad track work.

All students are required to keep complete field notes, and to prepare maps, sections and estimates from their own surveys. This office work is principally done during the regular session.

Field work is required of all students of the Second Year (except those taking the Practical Chemistry Course), of students of the Third Year in the courses of Civil and Mining Engineering and in Transportation, and of the Fourth Year in the Civil Engineering Course. The work will begin in 1910 on September 5th, and will continue for four weeks.

360. *Geodetic Laboratory.*—FOURTH YEAR.

The following determinations of the constants and errors of surveying instruments are made in the geodetic laboratory

(for equipment, see page 350) by the Fourth Year students in the Civil Engineering Course:—

(1) Measurement of magnifying power; (2) errors of graduation; (3) measurement of eccentricity of circles; (4) determinations of errors of run of theodolite microscopes; (5) investigation of the errors of graduation of a standard bar; (6) graduating scales with the dividing engine, and comparison thereof on the comparator; (7) investigation of the errors of graduation of circles on the circular comparator; (8) determination of the constants of steel tapes; (9) investigation of the graduation errors of steel tapes on the fifty-foot comparator; (10) determination of the scale value of level vials; (11) investigation of the accuracy of barometers.

The equipment of the surveying department comprises the following in addition to the apparatus of the observatory and geodetic laboratory:—Fifty-nine transit theodolites by various makers, with solar and mining attachments; a photo-theodolite; two 8-in. alt-azimuths; thirty-one dumpy and twelve wye levels; two gradient-telemeter levels; hand levels and clinometers; four precision levels; seventeen surveyor's compasses; one miner's dial; three prismatic compasses; pocket compasses; marine sextants; artificial horizons; box sextants; two reflecting circles; seven plane tables; six current meters; Rochon micrometers; double image micrometers; field-glasses; two heliotropes; several barometers; one 100 ft. Invar tape; 300 ft. and 500 ft. steel tapes suitable for base measurements; steel chains and steel bands; linen and metallic tapes; sounding lines; pickets; levelling rods; micrometer targets; slope rods; pedometers; station pointer; pantographs, planimeters, slide rules and minor appliances.

Examination for Land Surveyors:—Any graduate in the Faculty of Applied Science in the Department of Civil Engineering and Land Surveying, may have his term of apprenticeship shortened to one year for the profession of Land Surveyor.

Text Books and Books of Reference:—Gillespie's Surveying, Johnson's Theory and Practice of Surveying, Shortland's

Nautical Surveying, Greene's Practical and Spherical Astronomy, Nautical Almanac, Baker's Engineers' Surveying Instruments, Breed and Hosmer's Principles and Practice of Surveying, Trumbull's Underground Surveying.

16. Department of Railways.

PROFESSORS:— H. O. KEAY, B.Sc. (Mass. Inst. Tech.); V. I. SMART, B.A. (Queen's).

LECTURERS:— MR. A. A. GOODCHILD. MR. HERBERT MARTIN. MR. GEO. C. WELLS.

INSTRUCTORS:— MR. A. W. YOUNG. MR. H. F. MILLER.

THIRD YEAR. (OPERATING AND EXECUTIVE.)

172. *Economics.*—Economic theory, with special reference to the organization of modern commerce and industry, railways and their development, essay writing, the preparation of reports and discussion of practical problems. Dr. Leacock.

175. *Engineering Law.*—See page 249.

135. *English.*—The preparation and criticism of reports on stated subjects, the object being to acquire a clear and accurate style. Mr. Latham.

371. *Freight Service.*—Freight department organization, records, and statistics,—a full explanation of the methods of handling freight. Mr. Martin.

228. *Mechanical Engineering Laboratory.*—See page 255.

86. *Mechanics.*—See page 235.

372. *Railway Engineering.*—History of Canadian railways; the Railway Act of 1903; the conditions governing projected railway lines; the railway corporation; effect of location on volume of traffic; estimate of probable traffic; economic consideration of distance, curvature and grade; relative importance of grades; train resistance; equipment; limiting grades and curvature; trunk and branch lines; the reconnaissance for route; organization and records; preliminary survey; field

work, organization and equipment; maps and office work; location; curves; vertical curves; transition curves; equating curves; virtual profile, maximum grades; ruling grades; rise and fall; cross sections; estimates and computation of quantities; comparison and capitalization of two lines; cost of surveys; construction; earthworks; form of excavations and embankments; earthwork surveys; computation of volume; formation of embankments; computation of haul; cost of earthwork; trestles; pile and framed trestles; floor systems; openings; culverts and minor bridges; ballast; rail; rail fastenings; ties; switches and crossings; switch construction; mathematics of switch design; miscellaneous structures; yards and terminals. Professor Smart.

For list of Reference Books, see page 281. (Fourth Year Railway Engineering.)

355. *Mapping.*

Draughting, from notes, the paper location of a railway; maps and profiles; earthwork diagrams; switch design; yard design. Professor Smart.

373. *Railway Mechanical Engineering.*—Elementary course on the steam engine, steam boilers, power plant equipment, steam turbines, gas engines, compressed air and elementary locomotive construction and operation. Professor Keay.

Text Book:—Duncan's Steam and Other Engines (Macmillan).

374. *Organization and Accounting.*—Organization and Work of the various departments; duties of officers; accounting. (A course preparatory to that of the Fourth Year). Mr. Goodchild.

375. *Shorthand.*—Mr. Young.

376. *Telegraphy.*—Mr. Miller.

NOTE.—Students are required to follow systematic courses in shorthand and telegraphy throughout the Third and Fourth Years.

FOURTH YEAR. (OPERATING AND EXECUTIVE.)

379. *Accounting.*—The principles of accounting, a development of the course of the Third Year. Earnings and expenses; shop material and cost; labour and methods of paying for same; statements, their nature and value. Mr. Goodchild.

177. *Railway Economics.*—Transportation Economics, including the theory of railway rates, railway commissions, taxation of railways, government ownership and control, the treatment of transportation problems in Europe and America, etc. Attention will be paid to questions closely connected with transportation in Canada, such as the relative powers of the Dominion and Provincial Governments, the tariff, immigration, government aid to railways, public lands and immigration. *Essays* connected with the above questions will be required. Dr. Hemmeon.

111-112.—*Electrical Engineering.*—For details, see page 244.

138. *English.*—Continuing the work of the Third Year. Mr. Latham.

380. *Freight Service.*—An extension of the work of the Third Year. This course involves a discussion of the broader problems of the Freight Traffic Department. Mr. Martin.

381. *Railway Operation.*—Organization of conducting Transportation Department, the development of train dispatching in America, the development of the control of train movement in Europe, Conducting Transportation Expenses, standard time, the American Railway Association, formation of time tables, standard train rules, rules for movement of trains on single track, rules for movement of trains on double track, general rules covering the operation of trains and handling of freight and passengers, clearance cards and other blanks, station service, yard service, road service, duties of dispatchers and operators. Professor Smart.

382. *Signals.*—Block signalling, manual systems, automatic systems, estimates and plans. Professor Smart.

383. *Interlocking.*—Economic considerations, the different forms of mechanical interlocking machines, the locking sheet, dog charts, the lead out, the ground connections, switch and signal connections, the cabin, power machine, electro-pneumatic, all-electric, costs, interlocking of terminals and yards, electrical apparatus in connection with mechanical machines, construction and maintenance, organization of signal department, records and reports. Professor Smart.

384. *Interlocking Design.*—Design of crossing lay out, making of locking sheets and dog charts, block signal location plans, design of switch and signal connections. Professor Smart.

Books of Reference:—Adams, Block Signalling; Wilson's Mechanical Interlocking for Railways; Derr's Block Signal Operation; Rules of the London North Western Railway; American Railway Assoc. Standard Code; Manual of recommended practice, American Railway Engineering and Maintenance of Way Assoc; Laverack's Locking.

385. *Passenger Service.*—The passenger department; its organization, methods and general principles governing passenger business; baggage system; mail and express.

MR. WELLS.

150. *Physical Geography and Climatology.*—Geographical subdivisions of the country; mineral areas; timber belts; wheat areas and water powers; irrigation; climatology and its relations to occupations and soil products.

MR. BANCROFT.

176. *Railway Law.*—This course is concerned largely with the Railway Act, and a general outline of the law of common carriers. Special attention will be given to such subjects as expropriation, damage suits against

railway companies, and the more usual forms of contracts with carriers.

DR. WALTON.

386. *Railway Mechanical Engineering.*—Locomotive tractive power, train resistance, tonnage rating, locomotive testing, comparative costs of locomotive operation, boiler incrustation, chemical control of water purifying plants, determination of hardness, acidity, etc., fuel handling location, design, equipment and organization, with reference to roundhouses and railway shops, mechanical engineering requirements at terminals. Professor Keay.

387. *Railway Mech. Eng. Designing.*—The working out of numerous problems connected with the motive power department, supplemented by visits to power houses, shops, and locomotive terminals.

PROFESSOR KEAY.

Text Books:—Henderson's Locomotive Operation; Henderson's Cost of Locomotive Operation (Railroad Age Gazette).

388. *Railway Engineering.*—Interlocking, block signalling, organization of operating department, operating expenses, records and reports, maintenance of way organization, accounts and programme for expenditures, track maintenance, tie renewals, ballast renewals, relaying and renewing rails, track tools, work train service, steam shovel work. Betterments.

PROFESSOR SMART.

389. *Electric Railways.*—Preliminary considerations; probable earnings; interurban lines; city lines; effects of grades; curves and distance; time tables and schedules; rolling stock; railway motors; speed and current curves; train resistance and power-time curves; speed and energy curves; performance curves; trucks; brakes; controllers; construction; roadway; ballast; rail; power stations, and power distribution; repair shops; maintenance of track, equipment and transmission line.

MR. CHRISTIE.

Reference Books:—Canadian Railway Act of 1903; Wellington's Economics of Railway Location; Lavis, Railway Location Surveys and Estimates; Webb's Economics of Railway Construction; Gillette's Earthwork and its Cost; Allen's Railway Curves and Earthwork; Manual American Railway Engineering and Maintenance of Way Assoc; Rules of the M. of W. Dept. C. P. R.; Gotshall's Electric Railway Economics; Tratman's Track and Track Work; Paine's Roadmaster's Assistant; Camp's Notes on Track.

390. *Shorthand.*—Mr. Young.

391. *Telegraphy.*—Mr. Miller.

Continuing the Third Year courses.

SPECIAL INFORMATION REGARDING THE FACULTY OF LAW.

THE SESSION 1910-1911 WILL OPEN ON MONDAY, OCTOBER 3RD, 1910.

The lectures are delivered in the rooms furnished for the Faculty in the east wing of McGill College by its munificent benefactor, Sir Wm. C. Macdonald.

Students have the free use of the Law Library of the Faculty, to which large additions are continually being made, those lately added including, among many others, the Ontario Reports, the Nova Scotia Reports, Dalloz, Recueil Périodique, Campbell's Ruling Cases, the Encyclopædia of the Laws of England, the new series entitled "The English Reports," the American and English Encyclopædia of Law and the American and English Encyclopædia of Pleading and Practice. The Library now contains all the Reports of the several Provinces of Canada. The principal reports and legal periodicals are taken. A special room for Law students is provided in the University Library. This room is open during the day, and in the evenings from eight to ten o'clock.

Particulars regarding the following points will be found on the pages named:—

	Page.
Entrance Requirements.*	25
Exhibitions and Prizes	65
Fees	78
Medals	69
Registration	43

For Time Tables of Lectures, see first part of Calendar.

* The attention of students who intend to practise law in the Province of Quebec, or to be admitted to the notarial profession, is called to the statutory requirements for admission to study. These will be found on page 296.

SPECIAL REGULATIONS.

1. Students shall register at the Office of the University, Registrar before commencing the work of the Session. The Register of Matriculation shall be closed on the 15th of October in each year. Candidates applying thereafter may be admitted on a special examination to be determined by the Faculty.

2. The lectures will be delivered between the hours of half-past 8 and half-past 9 in the morning, and between 4 and half-past 6 in the afternoon; and special lectures in the evening at such hours and in such order as shall be determined by the Faculty. Professors shall have the right to substitute an examination for any such lecture.

3. Undergraduates shall be known as of the First, Second, or Third Year, and shall be so graded by the Faculty. In each Year, students shall take the studies fixed for that Year, and those only, unless by special permission of the Faculty.

4. At the end of each College Year there shall be a general examination of all the classes, under the superintendence of the Professors, and of such other examiners as may be appointed by the Corporation. The examination shall be conducted by means of printed questions, answered by the students in writing in the presence of the examiners.

5. At the end of the Third College Year there shall be a final examination of those students who have completed the curriculum. This examination shall be conducted by written papers, which may be supplemented by an oral examination. It shall cover all the subjects upon which lectures have been delivered during the three years' course. Those students who satisfy the examiners shall be entitled, after making the necessary declaration and payment of the Graduation Fee, to proceed to the Degree of B.C.L. There shall be no sessional examination of students who are candidates in the final examination.

6. No student shall be considered as having kept a Session unless he shall have attended regularly all the courses of lec-

tures, and shall have passed the sessional examinations to the satisfaction of the Faculty in the classes of his Year.

7. The Faculty shall have the power upon special and sufficient cause shown, to grant a dispensation to any student from attendance on any particular course or courses of lectures, but no distinction shall in consequence be made between the examinations of such students and those of the students regularly attending lectures.

8. Every candidate, before receiving the degree of B.C.L., shall make and sign the following declaration:—

Ego A.B. polliceor sancteque recipio, me, pro meis virbus, studiosum fore communis hujus Universitatis boni, et operam daturum ut ejus decus et dignitatem promoveam, et officiis omnibus ad Baccalaureatus in Jure Civili gradum pertinentibus fungar.

9. On the following days, when they fall within the session, no lectures will be delivered, viz.: Ash Wednesday, Good Friday, Easter Monday, and Thanksgiving Day. On the following days the morning lectures will be omitted, viz.: All Saints' Day (Nov. 1st), and Conception Day (Dec. 8th).

ADVISORY COMMITTEE.

The attention of the McGill Law Faculty has been drawn to the fact that students commencing their undergraduate course frequently need information with regard to law offices in which their services would be welcomed. For the purpose of furnishing such information and also of assisting the graduates of the Law school to obtain suitable positions in offices needing legal assistance, a number of members of the Bar have been kind enough to form themselves into an Advisory Committee. Members of the Bar desiring the assistance of students or young graduates are requested to communicate with the Secretary of this Committee, Mr. C. M. Cotton, B.A., B.C.L. The Committee consists of the following gentlemen:—

C. J. Fleet, B.A., B.C.L., K.C.; W. J. White, M.A., D.C.L., K.C.; E. E. Howard, B.A., B.C.L.; Lawrence McFarlane, B.A., B.C.L.

THE COURSE OF STUDY.

The Curriculum extends over three years. It includes lectures upon all the branches of the Law administered in the Province of Quebec, and also upon Roman Law, Legal History, and the Constitutional Law of England, and of the Dominion. Its primary design is to afford a comprehensive legal education for students who intend to practise at the Bar of the Province. In all the courses the attention of students is directed to the sources of the Law, and to its historical development. During their First Year the students will attend one hundred lectures on Roman Law, from which the Law of this Province is in great part derived. In the lectures on Legal History, the history of our Law since the Cession, and its relations to the French and to the English Law, will be explained. First Year students will also attend courses on the Law of Persons; the Law of Real Estate; the Law of Obligations; the elementary rules of Procedure; and an introductory course on Criminal Law. A new feature of the First Year curriculum is a practical course on Pleading, with numerous exercises in drafting. This course will be given in French. The remaining branches of Law, civil, commercial, and criminal, will be dealt with in the Second and Third Years. During the three years the Civil Code, the Criminal Code, and the Code of Civil Procedure will be covered, and lectures will also be given upon such subjects as Bills of Exchange, Merchant Shipping, and Banking, (which are regulated mainly by special statutes), as well as on the law of Evidence. A course in Municipal Law has also been arranged for.

The Faculty desire to impress upon English students the great importance of obtaining a familiar knowledge of French. In the practice of the profession in this Province it is indispensable that a lawyer shall be able to write and speak French. The Faculty are determined to exact a high standard in this subject, and have passed a new regulation to secure this end (see page 26). Moot Courts are held from time to time in order to afford practice in the presentation of legal arguments.

Those students who are able to take the B.A. course before entering upon their legal studies are strongly recommended to do so. Those for whom this is impossible are advised to attend courses in the Faculty of Arts for two years.

COURSES OF LECTURES.

Roman Law.

PROFESSOR:—F. P. WALTON, B.A. (Oxon), LL.B. (Edin.), LL.D. (Aberd.)

During the first part of the course the external history of the law from the early period to the codification of Justinian will be dealt with. The sources of the law will be described, and the gradual evolution explained by which the law of the city of Rome became fitted to be the law of the civilized world. A brief sketch will be given of the legal institutions of Rome in the first period and of the early constitutional history.

In the doctrinal part of the course matters mainly of antiquarian interest will be touched on but slightly. Those portions of the Roman Law which have been followed most closely in the existing law of the Province, *e.g.*, property, servitudes, pignus and hypothec, and obligations, will be treated in detail, and the modifications made by the modern law will be noticed. Class-examinations will be held from time to time, and a first and second prize in books will be given to the two students who obtain the highest marks in these examinations.

Text-books:—For the historical part, Walton's Historical Introduction to the Roman Law; and for the Institutes, Moyle's or Sandar's Institutes of Justinian, or Girard, Manuel de Droit Romain.

Books of Reference:—

Muirhead's Historical Introduction to Roman Law; Muirhead's Institutes of Gaius; Maynz, Cours de Droit Romain; Puchta, Institutionen; Maine's Ancient Law.

Constitutional and Administrative Law.

PROFESSOR:—F. P. WALTON, B.A. (Oxon), LL.B. (Edin.)., LL.D. (Aberd.)

The object of this course is to show the actual working of the Canadian constitution. A sketch of the constitutional history prior to Confederation is given. The B. N. A. Act is explained, and the leading cases discussed which illustrate the respective powers of the Federal and of the Provincial Legislatures. The growth of Cabinet Government is traced, and some of the fundamental rules of the English Constitution are expounded and contrasted with those followed in other countries.

No text-book is prescribed, but students are recommended to refer to Todd, Parliamentary Government in the British Colonies; Houston, Constitutional Documents of Canada; Dicey, Law of the Constitution; Anson, Law and Custom of the Constitution.

Obligations—Advanced Course.

PROFESSOR:—F. P. WALTON, B.A. (Oxon), LL.B. (Edin.)., LL.D. (Aberd.)

Two alternate courses are delivered to students of the Second and Third Years.

Their object is to explain important parts of the law of obligations in more detail than is possible in the general course on the subject.

The method is mainly the explanation of illustrative cases. Frequent references are made to French and English decisions.

Legal History and Bibliography.

PROFESSOR:—ARCHIBALD MCGOUN, M.A., B.C.L., K.C.

This course comprises an outline of the history of the law in force in the Province of Quebec.

The main source from which our law is derived is the Customary Law of France, as modified by the principles of Roman Law, embodied in several of the codes or collections

of Roman Law before the time of Justinian. The Customs of France after being reduced to writing were further modified by the influence of modern Roman Law, which prevailed throughout the larger part of France. The ordinances of the French kings and the commentaries of the great jurists, from Cujas and Dumoulin down to Pothier, brought the Civil Law of France into the systematic form in which it was administered in this Province. The Custom of Paris, one of the most important of those recognized in France, became formally the basis of the Civil Law in this country, and the ordinance of 1667 was the main authority for procedure.

Since the opening of the British régime the development of Lower Canadian Civil Law has proceeded independently of the Civil Law of France, where the Code Napoléon was passed early in the Century. In Lower Canada a code on the same lines was adopted shortly before Confederation. Lower Canadian Civil Law has been modified by English Law in commercial matters, and also by statutes passed in the Province. The Criminal Law has been derived almost exclusively from the Criminal Law of England.

The leading authorities upon the main branches of the law, with the reports of decisions of our courts, are brought under the attention of the students in this course.

Agency and Partnership.

PROFESSOR:—ARCHIBALD MCGOUN, M.A., B.C.L., K.C.

This course begins with the principles of the law of Mandate, as laid down in the Civil Code of Lower Canada, and treats of Civil and Commercial Agency. The rights and liabilities of principal and agent both between themselves and in relation to third parties is considered, and special attention is directed to the powers of agents in selling, pledging, and dealing with the property of the principal. The law relating to factors or commission merchants, brokers, and other agents is explained.

In partnership the right of each partner to bind his fellow partner in virtue of the mandate reciprocally given and en-

joyed, leads to the distinction between civil and commercial partnership, and the limited partnership, or société en commandite, is also treated of. The distinction between partnership and joint stock companies leads to a consideration of the connexion between this subject and the subject of Companies and Corporations which form the subject matter of a course given in alternate years.

Law of Corporations and of Joint Stock Companies.

PROFESSOR:—G. W. MACDOUGALL, B.A., B.C.L., K.C.

General course on organization of companies under the Dominion and Quebec Companies Acts. Nature of various securities; rights and powers of directors and shareholders; amalgamation and reorganization of companies; winding-up proceedings.

Persons.

PROFESSOR:—G. W. MACDOUGALL, B.A., B.C.L., K.C.

This course covers the Law of acts of civil status, absentees, marriage, separation, divorce, filiation, minority and interdiction.

Criminal Law.

PROFESSOR:—HON. MR JUSTICE DAVIDSON, M.A., D.C.L.

This course includes:—

A history of the Criminal Law and Criminal Procedure of England, and of their introduction into and development throughout Canada; discussion of the Criminal Code and other statutes enacting criminal offences; of the rules of evidence in criminal cases; of the Fugitive Offenders' Act; of extradition; and, generally, of the principal features belonging to the Criminal Law of the Dominion.

Commercial Law, I.

PROFESSOR:—R. C. SMITH, B.C.L., K.C.

The subjects dealt with will include commercial sales and the law of insurance.

The course on Insurance will cover:—

(*a*) Insurance, contracts of; (*b*) marine insurance; (*c*) fire insurance; (*d*) life insurance.

Commercial Law, II.

PROFESSOR:—HON. MR. JUSTICE CROSS, B.A., B.C.L., K.C.

The subjects dealt with are: bills of exchange and promissory notes and banking, in one course, and shipping and carriers in another.

Marriage Covenants and Minor Contracts, Prescription. Lease, and Municipal Law.

PROFESSOR:—A. GEOFFRION, B.C.L., K.C.

Two courses—in alternate years.

Civil Procedure, II.

PROFESSOR:—HON. C. J. DOHERTY, D.C.L.

The advanced course for the Second and Third Years covers all matters of procedure not dealt with in the First Year course, and includes trial, provisional remedies, such as capias, attachment before judgment, injunction, etc., and special proceedings, such as proceedings relating to corporations, and public offices, mandamus, etc., as well as the rules of pleading in the more complicated classes of action. It will be divided into two parts, which will be taken in alternate years.

Successions, Gifts and Substitutions.

PROFESSOR:—HON. C. J. DOHERTY, D.C.L.

Two courses—in alternate years.

I. The Law of Succession.

The course consists of a commentary and explanation of the whole of Title I, and the Third Chapter of Title II of the Third Book of the Civil Code. The order followed by the Code in dealing with the different matters coming within the scope of this course, has however been departed from, with a view of presenting to the student the law governing succes-

sions as one whole. The subject will be developed as nearly as possible in the following order:—

(1) General notions, definitions, and divisions of the subject; (2) the testamentary succession; (3) the ab-intestate succession; (4) rules of law common to both successions; (5) rules peculiar to the testamentary succession; (6) rules peculiar to the ab-intestate succession; (7) partition of the succession (and of property held in undivided ownership generally), its incidents and effects.

II. Gifts and Substitutions.

This course comprises a commentary on and explanation of Chapters I, II, and IV of Title II of the Third Book of the Civil Code, dealing with:

(1) Gifts inter vivos; (2) gifts in contemplation of death, as permitted in contracts of marriage; (3) substitutions.

Real Property Law and Registration.

PROFESSOR:—W. DE M. MARLER, B.A., D.C.L.

FIRST YEAR COURSE:—25 *lectures.*

Registration of Real Rights—its objects; modes of registration; effect; the cadastral system.

SECOND AND THIRD YEAR COURSE:—50 *Lectures, in alternate Courses.*

First Course:—Mode of acquisition of immoveables—25 lectures.

In this course, a deed of sale will be analyzed and its various clauses explained: the parties; the description and the measurement of land; the obligations of buyer and seller and the security for their performance; warranty, its modifications and results; the form and registration of the deed; the rights of the wife; the distinctions between sale and other modes of acquisition, and their effects on the parties; forced sales, their incidents and results; examination of titles, practically considered.

Second Course:—Privileges and hypothecs; servitudes—25 lectures.

Debts and causes of preference; characteristics of hypothecs—the various kinds, their history, conditions and effects; the ranking of hypothecs; the hypothecary action, its characteristics, incidents and results; privileges on immoveables; registration of privileges and hypothecs; servitudes—natural, legal and conventional; water courses and streams; walls and fences.

Public International Law.

PROFESSOR:—HON. C. J. DOHERTY, D.C.L.

Sovereignty and equality of independent states; recognition of belligerency and independence; justifiable grounds of intervention; modes of territorial acquisition; territorial boundaries; doctrine of exterritoriality; treaties and arbitrations; laws of war; neutrality of states and of individuals; laws of blockade; contraband; confiscation; prize-courts and their jurisprudence.

The students' attention will be specially directed to treaties, diplomatic relations, and international arbitrations, in which Canada is directly concerned.

Private International Law.

PROFESSOR:—HON. C. J. DOHERTY, D.C.L.

Distinction between the *a priori* and positive methods; sources of the positive law of Quebec on the subjects; application and illustrations of the rules for solving conflicts of law in regard to the different titles of the Civil Code; comparisons between our jurisprudence and that of England, France and Germany.

These two courses will be given in alternate years.

Pleading and Practice.

LECTURER:—E. FABRE SURVEYER, B.A. (Laval), B.C.L.

This course of lectures deals with the different species of actions, their institution, the summoning of defendants and the pleadings necessary to complete the issues (C. P., 76 to 219); the most usual incidents, such as interventions (220 to

224), and continuance of suits (266 to 274); procedure in uncontested cases (418 to 420, and 532 to 535); amendments (513 to 526); putting in security (559 to 565); oppositions to the sale of moveables (644 to 654), oppositions for payment (670 to 676); cases of coercive imprisonment (832 to 836); abandonment of property (849 to 892); provisional measures (893 to 977); exemptions from seizure (598, 599, 1089); procedure before the Circuit Court (1126 to 1149), and in summary matters (1150 to 1162), and recourses against judgments (1163 to 1188).

It includes the schedules and rules of practice referring to the above mentioned articles, and forms of the most common kinds of pleadings.

Evidence.

LECTURER:—ARNOLD WAINWRIGHT, B.A., B.C.L.

This course consists of an explanation of the main principles and rules of evidence in the civil and commercial matters governed by the provisions of the Civil Code.

The opening lectures will be devoted to an examination of the general principles regulating the proof of facts involved in judicial investigations relating to such matters. This will be followed by an analysis of the different kinds of evidence by means of which these facts may be proved, with an explanation of the special rules applicable to each kind. The concluding lectures will deal with the manner of producing evidence, with special reference to the examination and cross-examination of witnesses.

In the course of the lectures articles 1203 to 1244 of the Civil Code, and such articles of the Code of Civil Procedure as relate to the subject of Evidence, will be commented upon and explained.

REQUIREMENTS FOR THE DEGREE OF D.C.L.

(*Adopted March*, 1891.)

Every candidate for the degree of D.C.L., in Course, must be a Bachelor of Civil Law of twelve years' standing, and

must pass such examination for the degree of D.C.L. as shall be prescribed by the Faculty of Law. He shall also, at least two months before proceeding to the Degree, deliver to the Faculty twenty-five printed copies of a thesis or treatise of his own composition on some subject, selected or approved by the Faculty, such thesis to contain not less than fifty octavo pages of printed matter, and to possess such degree of merit as shall, in the opinion of the Faculty, justify them in recommending him for the Degree.

The examination for the Degree of D.C.L., in Course, shall, until changed, be on the following subjects and authors, with the requirement of special proficiency in some one of the groups below indicated. In the groups other than the one selected by the candidate for special proficiency, a thorough acquaintance with two works of each group shall be sufficient, including in all cases the work first mentioned in each group and the first two works in the third group. In the first group one work on Public and one on Private International Law must be offered.

1. International Law.

A. Public:—
Twiss, Sir T., Law of Nations.
Hall, W. E., International Law.
Harcourt, Sir W. V., Letters by *Historicus*.
Ortolan, T., Diplomatie de la Mer.
De Martens, Droit International.
Holland, Studies in International Law.

B. Private:—
Savigny, Private International Law (Ed. Guthrie).
Bar, Private International Law (Ed. Gillespie).
Foelix, Droit International Privé.
Laurent, Droit Civil International.
Brocher, Droit International Privé.
Fiore, Droit International Privé (Ed. Pradier-Fodéré).
Dicey, Conflict of Laws.
Story, Conflict of Laws.
Lafleur, E., Conflict of Laws.

2. Roman Law.

Maynz, Droit Romain.
Muirhead's Roman Law.
Girard, Manuel de Droit Romain.
Ortolan's Institutes (Ed. Labbé).

Savigny, Roman Law in the Middle Ages.
Cuq, Les Institutions Juridiques.
Puchta, Institutionen.
Krüger, Römische Rechtsquellen.
Roby's Introduction to the Digest.
Hunter's Roman Law.

3. Constitutional History and Law.

Dicey's Law of the Constitution.
Stubbs' Constitutional Law of England.
Hearn, Government of England.
Bagehot, English Constitution.
Franqueville, Gouvernement et Parlement Britanniques.
Gneist, Constitution of England.
Hallam, Constitutional History of England.
May, Constitutional History of England.
Gardiner, Constitutional History of England.
Freeman, Growth of the English Constitution.
Mill, Representative Government.
Anson, Law and Custom of the Constitution.

4. Constitution of Canada and Works Relevant Thereto.

Todd, Parliamentary Government in the British Colonies.
Bourinot, Federal Government in Canada.
Cartwright, Cases under the British North America Act.
Lord Durham's Report on British North America.
Lareau, Histoire du Droit Canadien.
Houston's Constitutional Documents of Canada.
Volume O., Statutes of Lower Canada.
Maseres' Collection of Quebec Commissions.
Viollet, Histoire du Droit Français.
Dilke, Problems of Greater Britain.
Bryce, American Commonwealth.
Cooley, Principles of Constitutional Law.
Curtis, History of the Constitution of the United States.

5. Criminal Law, Jurisprudence, and Political Science.

Stephen, History of the Criminal Law.
Blackstone, Vol. IV.
Harris, Principles of Criminal Law.
Holland, Elements of Jurisprudence.
Salmond's Jurisprudence.
Austin, Lectures, omitting chapters on Utilitarianism.
Lorimer's Institutes.
Amos, Science of Law.
Woolsey, Political Ethics.
Lieber, Political Ethics.
Freeman, Comparative Politics.
Aristotle's Politics, by Jowett.

APPENDIX.

The attention of intending students is called to the following provisions of the Revised Statutes of Quebec and amendments, as bearing on the requirements for the study and practice of Law in the Province.

I. Regulations Applicable to those who Intend to Become Members of the Bar.

Article 3544 R.S.Q.—Examinations for admission to study and to practise law in the Province of Quebec are held at the time and place determined by the General Council.

The examinations for the practice are held alternately in Montreal and Quebec every six months, namely—at Montreal, on the second Tuesday of each January, and at Quebec on the first Tuesday of each July.

All information concerning all these examinations can be obtained from the General Secretary's Office. The present General Secretary is Arthur Globensky, Esq., K.C., 97 St. James St., Montreal.

Article 3546.—Candidates must give notice as prescribed by this article at least one month for the study and fifteen days for the practice before the time fixed for the examination to the Secretary of the Section in which he has his domicile or in which he has resided for the past six months.

Article 3503a. (added by Statute of Quebec, 1890, 53 Victoria, Cap. 45).—This article provides that candidates holding the diploma of Bachelor of Arts, Bachelier-ès-Lettres, or Bachelier-ès-Sciences from a Canadian or other British University are dispensed from the examination for admission to study. Such candidates are required to give the notice mentioned above.

Article 3548 R.S.Q. (as altered by by-law of the General Council).—On giving the notice prescribed by Article 3546, the candidate pays the Secretary a fee of $2, and makes a deposit of $105 for a complete certificate of admission to study; of $70 for a partial certificate of admission to study; and of $180 for admission to practice, which deposit, less $10, is returned in case of his not being admitted.

Article 3552 (amended 1894, Q. 57 Vic., c. 35).—To be admitted to practice, the student must be a British subject, and must have studied regularly and without interruption during ordinary office hours, under indentures before a notary as clerk, or student with a practising advocate, during four years, *dating from the registration of the certificate of admission to study*. This term is reduced to three years in the case of a student who has followed a regular Law Course in a university or college in this Province and taken a Degree in Law therein.

The by-laws passed by the General Council of the Bar of the Province of Quebec, 16th Sept., 1886, and amended 10th Feb., 1892, provide as follows:—

Art. 42. A course of lectures on Law given and followed at a university or college in this Province, and a Diploma or Degree conferred on students by such university or college, shall be held to be such as contemplated in Art. 3552 R.S.Q. only when the university or college conferring the Degree and the student who receives it shall have efficiently followed the programme herein set forth.

The subjects on which lectures shall be given, and the number of lectures required on each subject for a regular course of lectures on law in a university or college shall be as follows:—

ROMAN LAW:— 103 lectures:—This subject shall include an introduction to the study of Law and the explanation of and comments on the Institutes of Justinian and the principal jurisconsults of Rome.

CIVIL, COMMERCIAL, AND MARITIME LAW:—413 lectures:—Lectures on these subjects shall cover at least three years. They consist of the history of French and Canadian law, the explanation of and comments on the Civil Code of the Province of Quebec and the statutes relating to Commerce and Merchant Shipping.

CIVIL PROCEDURE:—103 lectures:—Lectures on this subject shall extend over at least two years. It shall consist of the explanation of and comments on the Code of Civil Procedure and the statutes amending it, the organization of the Civil

Courts of this Province and the history of the different judicial systems of the country; also, the special modes of procedure provided by statutes and laws of general application.

INTERNATIONAL LAW, Private and Public:—21 lectures.

CRIMINAL LAW:—69 lectures:—This subject includes the history of criminal law in Canada, the constitution of criminal courts, criminal procedure, comments on statutes relating to criminal law, the relation of criminal law in Canada to the criminal law of England. The lectures shall extend over two years.

ADMINISTRATIVE AND CONSTITUTIONAL LAW:—41 lectures. —These subjects include an inquiry into the different political institutions and the public institutions of the country, the powers, organization and procedure of the Federal Parliament and of the Local Legislature, the laws on Education and the Municipal Code.

Art. 43.—Candidates for practice who hold a Degree in Law from a university or college in this Province shall produce with their notices a certificate from the principal or rector of such university or college to the effect that they followed a course of lectures on Law in the same, during at least three years, in conformity with the by-laws of the Bar; and such certificate shall further specify the number of public lectures at which they shall have attended on each subject mentioned in the foregoing programme, during each of the said three years. The last part of this certificate shall only be required for courses of lectures given after the 1st January, 1897.

Art. 44.—The examiners shall not consider a university Degree in Law valid for the purposes of admission to the Bar if they find that the candidate has not in fact followed the programme above.

II. Regulations Applicable to those who Intend to Become Notaries.

For the regulations applicable to the candidates for the Notarial Profession, see Revised Statutes of Quebec, Arts. 3801-3833, and 53 Vict., c. 45 (Que.).

SPECIAL INFORMATION REGARDING THE FACULTY OF MEDICINE.*

THE SEVENTY-NINTH SESSION OF THE FACULTY OF MEDICINE WILL OPEN ON TUESDAY, OCTOBER 4TH, 1910. THE INTRODUCTORY LECTURE WILL BE GIVEN ON MONDAY, THE 3RD. STUDENTS MAY REGISTER ON AND AFTER SEPTEMBER 26TH.

Particulars regarding the following matters will be found on the pages named:—

	PAGE.
Athletics	88
Board and Lodging	45
Double Courses (seven years for Degrees of B.A. or B.Sc. and M.D.)	112
Fees	76
Length of Course	9
Matriculation	24
Medals and Prizes	65
Morals and Discipline	87

FOUNDATION AND HISTORY.

The Faculty of Medicine of McGill University is the direct outcome of the Montreal Medical Institution which was opened in November, 1824.

In the year 1829 the Montreal Medical Institution became, by a formal act of the Governors of the Royal Institution for the Advancement of Learning, the Medical Faculty of McGill University.

In 1872, the Faculty moved to a building on the University Grounds.

This building was enlarged in 1885, and again through the generosity of Mr. John H. R. Molson, in 1895. In less than five years further enlargement was found to be necessary.

* Fuller information is given in the separate Calendar issued by the Faculty which can be obtained on application to the Medical Registrar.

This was rendered possible through the generosity of Lord Strathcona who, in 1898 contributed, in the names of Lady Strathcona and the Hon. Mrs. Howard, $100,000 towards the necessary extensions and alterations. The new buildings were formally opened by H. R. H. the Prince of Wales on September 19th, 1901.

On April 16th, 1907, the greater part of these buildings was destroyed by fire, and a more commodious and up-to-date structure has been erected on a new site. This building has been erected at a cost of considerably over half a million dollars, and ranks among the best of such buildings on the Continent. While awaiting the completion of the new building work has been carried on without any loss of efficiency, in the portion of the old building which was saved, in other university buildings and in the lecture theatres of the Royal Victoria and General Hospitals.

MATRICULATION.

The University Matriculation requirements are stated on pages 24 and 27 to 41.

Intending students are reminded that a Degree in Medicine does not give a right to practise.

Each province in Canada has special regulations in this connection. In most of them a standard of general education is insisted on as a preliminary. If possible, therefore, a student should register with the Medical Council of the province in which he intends to practise, before entering on the study of Medicine proper. A certificate of such registration will exempt the holder from any further examination for entrance to this University.

The Registrars of the Medical Councils in the several provinces, from whom full particulars regarding admission to study can be obtained, are as follows:—

QUEBEC.—Dr. Joseph Gauvreau, 55 St. Francois Xavier St., Montreal and Dr. C. R. Paquin, Quebec, P.Q.

ONTARIO.—Dr. J. L. Bray, 81 Isabella St., Toronto.

NEW BRUNSWICK.—Dr. Stewart Skinner, St. John.

NOVA SCOTIA.—Dr. A. W. H. Lindsay, 241 Pleasant Street, Halifax.

PRINCE EDWARD ISLAND.—Dr. S. R. Jenkins, Charlottetown.

MANITOBA.—Dr. J. S. Gray, 358 Hargrave St., Winnipeg.

ALBERTA.—Dr. J. D. Lafferty, Calgary, Alta.

SASKATCHEWAN.—Dr. G. A. Charlton, Regina, Sask.

BRITISH COLUMBIA.—Dr. C. J. Fagan, Victoria.

The Registrar of the Medical Council in Newfoundland is Dr. H. Rendell, St. John's.

FELLOWSHIPS.

Teaching and Research Fellowships are being established in connection with the various laboratories.

These fellowships are of the value of five hundred dollars per annum, are open only to graduates in Medicine, and are tenable for three years.

Two are now established in connection with the department of Pathology—a Governor's Fellowship, endowed by one or two of the Governors of the University, and a Faculty Fellowship, established by the Faculty.

REGULATIONS FOR THE DEGREE OF M.D., C.M.*

1. No one will be admitted to the degree of Doctor of Medicine and Master of Surgery who shall not have attended lectures for a period of five eight month sessions in this University, or some other university, college or school of medicine, approved by this University.

2. Students of other universities, so approved, who may be admitted on production of certificates to a like standing in this University shall be required to pass all examinations in Primary and Final Subjects in the same manner as students of this University.

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* It should be understood that the programme and regulations regarding courses of study and examinations contained in this Calendar hold good for this calendar year only, and that the Faculty of Medicine, while fully sensible of its obligations towards the students, does not hold itself bound to adhere absolutely, for the whole five years of a student's course, to the conditions here laid down.

3. Graduates in Arts who have taken two full courses in General Chemistry, including laboratory work, two courses in Biology, including the subjects of Botany, Embryology, and the dissection of one or more types of Vertebrata, may, at the discretion of the Faculty, be admitted as Second Year students, such courses being accepted as equivalent to the First Year in Medicine. Students so entering will, however, not be allowed to present themselves for the final examination in Anatomy until they produce certificates of dissection for two sessions.

4. Candidates for the final examination shall furnish testimonials of attendance on the following branches of medical education; provided, however, that testimonials equivalent to, though not precisely the same as those above stated, may be presented and accepted;—

Anatomy. Practical Anatomy. Physiology. Practical Physiology. Chemistry. Pharmacology and Therapeutics. Principles and Practice of Surgery. Obstetrics and Diseases of Infants. Gynæcology. Theory and Practice of Medicine. Clinical Medicine. Clinical Surgery.	Of which two full courses will be required.
Biology. Medical Jurisprudence. General Pathology. Histology. Hygiene and Public Health. Practical Chemistry. Ophthalmology and Otology.	Of which one full course will be required.
Medical Physics. Clinical Chemistry. Biological Chemistry. Pathological Anatomy. Bacteriology. Mental Diseases. Pediatrics. Medical and Surgical Anatomy.	Of which one course will be required.

He must also produce certificates of having assisted at six autopsies, of having dispensed medicine for a period of three months, of having assisted at twenty vaccinations, and of having, under the direction of a properly qualified anæsthetist, administered an anæsthetic at least twice.

Courses of less length than the above will only be received for the time over which they have extended.

5. No one will be permitted to become a candidate for the Degree who shall not have attended at least one full session at this University.

6. Candidates must give proof of having attended, during at least twenty-four months, the practice of the Montreal General Hospital or the Royal Victoria Hospital, or of some other hospital of not fewer than 100 beds, approved by this University. Undergraduates are required to attend only the practice of the Out-Patient Departments of the Hospital during their Third Year.

7. He must give proof of having acted as clinical clerk for six months in medicine and six months in surgery in the wards of a general hospital recognized by the Faculty, and of having reported at least ten medical and ten surgical cases.

8. He must also give proof by ticket of having attended for at least nine months the practice of the Montreal Maternity or other lying-in Hospital approved of by the University, and of having acted as assistant for at least twelve cases.

9. Every candidate for the Degree must, on or before the 20th day of April, present to the Registrar of the Medical Faculty testimonials of his qualifications, entitling him to an examination, and must at the same time deliver to the Registrar of the Faculty an affirmation or affidavit that he has attained the age of twenty-one years.

10. The following oath or affirmation will be exacted from the candidate before receiving his Degree:

Ego, A——— B———, Doctoratus in Arte Medica titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo:—me in omnibus grati animi officiis erga hanc Universitatem ad extremum vitæ halitum perserveraturum; tum porro artem medicam caute, caste et probe exercitaturum; et quoad in me est, omnia ad ægrotorum cor-

porum salutem conducentia cum fide procuraturum; quæ denique inter medendum visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita praesens mihi spondenti adsit Numen.

EXAMINATIONS.

Frequent oral examinations are held to test the progress of the student, and occasional written examinations are given throughout the session.

The Pass and Honour Examinations at the close of each Session are arranged as follows:—

First Year.

Examinations in **Biology (including Embryology and Elementary Bacteriology), Anatomy, Medical Physics, Inorganic Chemistry, Practical Chemistry and Histology.**

Students who have taken one or more University courses in Biology or Chemistry before entering may be exempted from attendance and examination. Students exempted in these First Year subjects are allowed only a pass standing, but may present themselves for examination if they desire to attain an honour standing. Students exempted from First Year Chemistry must take Second Year Chemistry, in their First year.

Second Year.

Examinations in **Anatomy, Physiology, Organic and Biological Chemistry Histology and Pharmacy.**

Third Year.

Examinations in **Physiology, Physiological Chemistry, Clinical Chemistry. Pharmacology, General Pathology, Bacteriology, Clinical Medicine and Clinical Surgery.**

Fourth Year.

Examinations in **Medicine, Surgery, Obstetrics, Pharmacology and Therapeutics, Medical and Surgical Anatomy.**

Fifth Year.

Examinations in **Medicine, Surgery Gynæcology, Clinical Medicine Clinical Surgery, Obstetrics, Ophthalmology, Oto-Laryngology, Hygiene Medical Jurisprudence, Mental Diseases.**

By means of the above arrangement a certain definite amount of work must be accomplished by the student in each year, and an equitable division is made between the Primary and Final branches.

A minimum of 50 per cent. in each subject is required to pass and 75 per cent. for honours.

The work of each session must be completed and all examinations passed before a student is allowed to advance to the next.

Candidates who fail at the regular examinations in not more than three subjects of the First or Second Years, or in not more than two subjects of the Third or Fourth Years, may, at the discretion of the examiners, be granted supple- of the following Session. These examinations will be held during the week preceding the regular opening of the Session.

Students who fail in both Physiology and Anatomy at the end of the second year are required to repeat their year.

Failure in more than three subjects at the regular examinations of the First or Second Years or in more than two subjects of the Third or Fourth Years, excludes the candidate from further examination and necessitates his repeating the work in the subjects in which he has failed.

Candidates who fail to pass in a subject in which practical work is required may, at the discretion of the examiner, be required to repeat the course and furnish a certificate of attendance thereon.

Students who fail in one subject only of the Final Year may, at the discretion of the Faculty, be allowed a supplemental examination in that subject. Should the subject be one in which practical or clinical work is required, the student must furnish a certificate of additional hospital attendance or laboratory work before presenting himself for examination.

Students who fail at the examinations held at Christmas may, at the discretion of the examiners, be granted supplemental examinations at a period not less than three months after the regular examination.

Applications for supplemental examinations must be in the hands of the Registrar at least three days before the date set for the beginning of the examination and they must be accompanied by a fee of $5.00 for each subject.

COURSES OF LECTURES.

General Statement and Plan of Instruction.

The period of study for the degree of Doctor of Medicine and Master of Surgery has been increased to five sessions of eight months each. This step has been taken by the Faculty only after a careful study of the requirements of a modern medical education. The crowded state of the curriculum under the old four year system made it difficult for a student to do more than attend the required number of lectures, clinics and demonstrations, leaving little time for reading and none at all for recreation. With the additional year, by a re-arrangement of the curriculum, more time will be given to the fundamental subjects of Chemistry and Biology, while a thorough grounding will be given in the important subjects of Anatomy, Physiology, Pharmacology and Histology. The teaching in these branches as well as in Pathology and Bacteriology is largely conducted in the well equipped laboratories of the College. The greater part of the added year is devoted to clinical instruction as in addition to the time provided in the Third and Fourth Years, the Fifth Year will be given over almost wholly to clinical work in the wards of the hospitals. As a field for clinical study the wards of the Montreal hospitals afford opportunity not surpassed even in the large centres of Europe, and the fact that the clinical professors in the University are the attending physicians and surgeons of these hospitals makes it possible for our students to take full advantage of this wealth of clinical material.

Under the new arrangement of the curriculum the subjects will be taken up as indicated on page 304.

ANATOMY.

PROFESSOR:—FRANCIS J. SHEPHERD, M.D., LL.D.

LECTURERS:—J. A. HENDERSON, M.D.
J. J. ROSS, B.A., M.D.
A. E. ORR, M.D.

DEMONSTRATOR:—C. K. P. HENRY, M.D.

ASSISTANT DEMONSTRATORS:—J. A. NUTTER, B.A., M.D.
J. W. HUTCHINSON, M.D.
F. S. JACKSON, M.D.
F. MCKENTY, M.D.
W. H. SMYTH, M.D.

Anatomy is taught in the most practical manner possible and its relation to Medicine and Surgery fully considered. The lectures are illustrated by the fresh subject, moist and dry preparations, sections, models, plates and drawings on the blackboard. Frequent examinations are also held.

A course of practical demonstrations in medical, surgical and topographical Anatomy is also given in the Fourth Year of the course.

The department of *Practical Anatomy* is under the direct control and personal supervision of the Professor of Anatomy, assisted by his staff of Demonstrators.

The methods of teaching are similar to those of the best European schools, and students are thoroughly grounded in this branch.

Every student must be examined *at least* three times on each part dissected, and no certificate is given unless the examinations are satisfactory.

Special demonstrations on the brain, thorax,, abdomen bones, etc., are frequently given. Prizes are awarded at the end of the session for the best examination on the fresh subject.

The Dissecting Room is open from 9 a.m. to 6 p.m. In consequence of the excellent Anatomy Act of the Province of Quebec, abundance of material can always be obtained.

MEDICAL CHEMISTRY AND PHYSICS

PROFESSOR OF ORGANIC AND BIOLOGICAL CHEMISTRY:—R. F. RUTTAN, B.A., M.D.

PROFESSOR OF PHYSICS:—H. T. BARNES, D.Sc.

LECTURER IN MEDICAL PHYSICS:—F. H. DAY, M.Sc.

LECTURER IN BIOLOGICAL CHEMISTRY:—LOUIS BAUMANN, M.D.

DEMONSTRATORS IN GENERAL CHEMISTRY: W. BUELL MELDRUM, M.Sc.

DEMONSTRATOR IN CLINICAL CHEMISTRY:—CAMPBELL P. HOWARD, B.A., M.D.

PHYSICS.

Instruction in Elementary Physics for students in Medicine is given in the Physics Building of the University.

This is a course for students of the First Year and consists of three lectures and one laboratory period per week for the autumn term. The experimental lectures as well as the laboratory work, have been especially planned to meet the requirements of students in Medicine. An examination on the work of the term is held at Christmas.

CHEMISTRY.

Instruction in Chemistry for students in Medicine is given during a portion of each of the first three years.

First Year: During the Autumn Term the principles governing chemical action are studied in a systematic laboratory course. A printed synopsis of the work of each day is provided and necessary explanations given before beginning the work. The course includes a study of chemical phenomena; the preparation and properties of typical elements and compounds; the laws of chemical action; gravimetric and volumetric determinations, and a short course in qualitative analysis. The student is required to pay special attention to the keeping of an accurate record of his observations and calculations. Note books for this purpose are provided and are examined and criticised by the demonstrators. An examination is held at Christmas.

During the second term of the First Year a course of experimental lectures in general chemistry is given; three per week with frequent reviews and examinations. This course is designed to familiarize the student with the characteristics of chemical action and the conditions which modify it, rather than a detailed study of the preparation and properties of the elements and their compounds. The application of chemistry to physiology and pathology is made especially prominent. An examination in general chemistry is held at the end of the first session.

Second Year: A course of three lectures per week on organic and biological chemistry is given during the whole session. In this course the facts and theories of organic and physical chemistry, which have an essential bearing upon medical science, are first presented in the simplest form. This is followed by a more detailed study of those organic compounds and reactions which pertain to the phenomena of life. From Christmas to April laboratory work in organic and biological chemistry, two periods per week, will be given. In this course the student will study practically the chemistry of the more important organic substances which are found in the tissues, together with the chemical and physical conditions which influence their production. This course is intended to lead up to and partly include the subject matter of the usual courses in physiological and pathological chemistry.

The course includes a study of the carbon, nitrogen and energy cycles in nature; enzymes and catalysis; esterification; fats and lipoids; carbohydrates; amino acids; proteins; protein toxins; nuclein and purin bodies; urea; creatinin; indol, etc; together with the application of elementary physical chemistry to the problems of medicine and biology.

Third Year: A laboratory course of about four weeks in clinical chemistry is given to students at the end of their Third Year. In this course the student is made familiar with the more convenient and practical methods for the chemical and physical examination of urine, fæces, blood, stomach contents,

etc., as a preliminary to their application to cases in the hospitals. In addition, exercises are given in the detection of certain poisons, food preservatives, etc., which are of easy application by the general practitioner.

An advanced optional laboratory course in clinical and biological chemistry will be given at the end of the Third Year to those students whose preliminary training in chemistry and standing in the pass courses show they are able to profit by it. This course will include the more recent exact methods of determination of creatinin, ammonia, acetone, etc., in urine, Kjeldahl determinations of nitrogen, cryoscopic determinations of fluids, etc., and must be taken by all candidates for the Sutherland medal.

Students will find it greatly to their advantage to have a practical knowledge of elementary chemistry before entering upon the study of Medicine. Graduates in arts of recognized universities, on presenting certificates of having taken courses in theoretical and practical chemistry, and of having passed examinations in the same, may be exempted from the chemistry of the First Year.

PHYSIOLOGY.

THE JOSEPH MORLEY DRAKE PROFESSOR:————————————————

ASSISTANT PROFESSOR:————————————————

LECTURERS:— A. A. ROBERTSON, B.A., M.D.
W. B. HOWELL, M.D.
T. P. SHAW, M.D.

DEMONSTRATOR:—A. L. C. GILDAY, B.A., M.D.

The purpose of this course is to make the student thoroughly acquainted, as far as time permits, with modern Physiology—its methods, its deductions, and the basis on which the latter rest. Accordingly a full course of lectures extending over two years is given, in which the physical, the chemical, and other aspects of the subject receive attention.

In addition to the use of diagrams, models, lantern demonstrations, etc., every department of the subject is illustrated

by experiment. An ample supply of apparatus is available for demonstration purposes and is being added to from year to year so that the department may be kept fully abreast of the times.

The physiological laboratory is fitted up so as to permit of eighty students engaging in work at one time. The fittings and equipment of each bench are of the latest design and are well adapted to their purpose. An elaborate electrical equipment permits of all the various currents required for physiological experiments being supplied to each bench. The apparatus was constructed by the best American and European makers and was thoroughly tested before being accepted.

During recent years the laboratory work for students has been entirely rearranged. Since the session of 1901-02, when over three thousand dollars worth of new apparatus was purchased, there has been a steady advance which still continues. The practical work, like the lectures, now extends over two years. Each group of two students is supplied with all the apparatus necessary to carry out the work of verifying a large number of the leading principles of physiology and registering the results by the graphic method.

Provision is also made for a course in chemical physiology, covering foodstuffs, digestion, the animal fluids, etc. The object of this course will be to assist the student to apply the knowledge obtained in the study of Biochemistry to Physiology. He will be shown the relationship of chemical changes in the laboratory to chemical changes occurring in the body. Under the head of food-stuffs the student will be taught the proportions of the various proximate principles in the common food stuffs and the effect of cooking upon them. The study of the digestive processes will include saliva and salivary digestion, the gastric juice and the changes in the stomach; pancreatic digestion; changes in the intestine and fæces.

Normal blood will be thoroughly studied chemically and physically under the following headings; proteins of blood alkalinity, specific gravity, cases; inorganic constituents of

the blood; changes taking place during the process of clothing; optical properties; the use of the spectroscope; estimation of hæmaglobin; counting of corpuscles; freezing point, electrical conductivity, transudations related to blood.

Lessons will also be given on the chemistry of typical tissues and their products, such as the liver and bile, the pancreas and other glands; muscle, bone, hair, the end products of metabolism leading to the study of normal urine (nitrogenous excretion), respiration (gaseous excretion) and the energy equation.

Throughout the whole course the needs of the future practitioner of scientific medicine are kept in view.

HISTOLOGY.

ASSOCIATE PROFESSOR:—J. C. SIMPSON, B.Sc.
LECTURER:—WALTER M. FISK, M.D.

The teaching of histology and histological methods extends throughout the First and Second Years. Lantern projections of stained microscopic sections will be made use of to demonstrate the normal tissues and their relations

In the First Year the students' work will commence immediately after the Christmas holidays and will continue to the end of the session. The first part of the course will consist of practical instruction upon histological technique; the second part will be devoted to the study of cytology and the more elementary tissues of the human body. Lectures will be given on elementary histology. At the end of the session a written and a practical examination will be held.

During the second year the student will study and make drawings from specimens which have already been prepared. Preceeding each day's work there will be a lantern demonstration of the specimens to be allotted. Lectures will be given on advanced histology and a written and a practical examination will be held at Christmas.

BIOLOGY.

PROFESSORS:— { D. P. PENHALLOW, D.Sc., PROFESSOR OF BOTANY.
ARTHUR WILLEY, D.Sc., F.R.S., PROFESSOR OF ZOOLOGY.

ASSOCIATE PROFESSOR OF EMBRYOLOGY:—J. C. SIMPSON, B.Sc.

The course in elementary Biology is designed to prepare for special study in medical subjects. It consists of two concurrent courses in Plant and Animal Biology given under the supervision of the professors of Botany and Zoology respectively.

A.—PLANT BIOLOGY.

(1) The course in Plant Biology is designed to introduce the student to a knowledge of such elementary structures and activities, and to a discussion of such biological principles as will not only assist in a broader interpretation of the facts connected with animal life, but will be of service in the further prosecution of medical studies from a biological point of view. It will therefore deal with the structure of the plant cell in comparison with the animal cell, and establish the essential features of cytoplasm and nucleus; the functions of respiration and the distinction between ærobic and anærobic respiration; the storage of energy by green plants and the general features of constructive metabolism; the utilization of energy as exemplified by leucophytes, and the general characteristics of destructive metabolism or catabolism; the division of labour and the origin of organs; the origin and significance of sex with a discussion of parthenogenesis; the general principles of plant evolution.

These studies will be illustrated by the practical examination of a series of carefully selected types.

Two lectures and two laboratory periods each week throughout the autumn term.

(2) An elementary course in the morphology and physiology of the bacteria for students of the First Year, designed to furnish a preparation for the more advanced course in bacteriology given in the Third Year.

Twelve lectures during the month of April.

The practical portion of the work will be given by the Department of Bacteriology.

B.—Animal Biology (Including Embryology).

This course consists of a study of the fundamental properties of protoplasm; the principles of the formation of tissues and organs; an outline of vetebrate structure and function, including a more detailed study of mammalian anatomy and osteology. The types studied are Amœba, Paramœcium, a Flagellate, Hydra, Lumbricus, Amphioxus, Scyllium (the English dog-fish), Rana and Lepus. In the case of the last type special attention will be given to the osteology.

The portion of the course devoted to comparative anatomy is followed by one on embryology. In this the following subjects will be dealt with:—The essential nature of the egg and spermatozoon; chromosomes, centrosomes and the maturation division; the segmentation of the egg and the simplest type of the differentiation of the primary embryonic layers, as illustrated by the early development of *Echinus;* the simplest type of vertebrate development, as illustrated by *Amphioxus;* the effect of the progressive accumulation of food yolk in hindering and modifying early development, as illustrated by the frog, the dog-fish, the gecko, and the chick; the formation of vertebrate organs, as illustrated by the chick; the development of special relations between the mammalian egg and the womb, as illustrated by the rabbit, the dog, the sheep, the lemur and man; finally, the special pecularities of the development of the human organs.

Two lectures and two laboratory periods throughout the Session, from October to May.

A special fee of $2.50 is charged against the caution money of each student attending the course in Animal Biology in order to cover the cost of instruments and laboratory note books supplied him.

PATHOLOGY, BACTERIOLOGY AND PARASITOLOGY.

PROFESSOR:—J. G. ADAMI, M.A., M.D., LL.D., F.R.S.
ASSOCIATE PROFESSOR OF PARASITOLOGY:—J. L. TODD, M.D., D.Sc.
ASSISTANT PROFESSOR:—A. G. NICHOLS, M.D., D.Sc.
LECTURERS IN PATHOLOGY:—JOHN MCCRAE, M.A., M.B. (Toronto), O. C. GRUNNER, M.D.
LECTURER IN BACTERIOLOGY:—H. B. YATES, B.A., M.D.
DEMONSTRATORS IN PATHOLOGY:—R. P. CAMPBELL, M.D., W. W. FRANCIS, M.D.
DEMONSTRATORS IN BACTERIOLOGY:—S. H. MCKEE, M.D., J. C. MEAKINS, M.D.

Owing to the change in the Fourth and Fifth Year courses, some modification has been required in the teaching. The following courses are subject to revision:—

PATHOLOGY.

1. A course in General Pathology to students of the Third Year. Lectures are delivered three times weekly throughout the winter and spring terms.

2. A course of demonstrations and the performance of autopsies for students of the Third Year. These demonstrations are held weekly from October until Christmas.

3. Demonstrations upon the autopsies of the week to students of the two final years. These will be given during the session by Dr. McCrae at the Royal Victoria Hospital, and Dr. Grunner at the Montreal General Hospital.

4. The performance of autopsies. Each student is required to take an active part in at least six autopsies. These are conducted at the General and the Royal Victoria Hospitals. In addition to the actual performance of the *sectio cadaveris*, the students are expected to attend practical instruction given with each autopsy in the method of preparation and microscopical examination of removed tissues, so as to become proficient in the methods of preparation, staining and mounting.

5. Practical course in Morbid Histology to students of the Third Year: two periods of two hours each, given weekly during winter term. Students are instructed in the staining and mounting of specimens. Following upon this, in order

that the student may make the fullest study of the material, and not spend most of his time in the mechanical processes of preparing it, at each period some five or six mounted sections are distributed to each; lantern demonstrations are given of the main features of the series, and the student is expected to make drawings of the salient features of each specimen.

6. A course in Special Pathology with demonstrations of Museum specimens and oral examinations; twice weekly during the winter and spring terms to students of the Fourth Year.

In addition to the above, the staff of the department gives instruction to more advanced students who desire to undertake special work in the laboratories: this more especially during the vacations.

Throughout the year the Curator of the Museum, Dr. M. E. Abbott, and Dr. W. W. Francis conduct a series of Museum demonstrations to students of the Third and Fourth Years in groups of twelve. The classes in Clinical Pathology and Microscopy are described in connection with the Department of Clinical Medicine.

In connection with this Department a Research and Teaching Fellowship has been established by certain Governors of the University.

Bacteriology.

1. A course of lectures upon Elementary Bacteriology for students of the First Year, delivered by Professor Penhallow.

2. A course of lectures upon Bacteriology in relation to disease, for students of the Third Year. Lectures three times weekly during the autumn term.

3. A practical course upon bacteriological technique and the preparation of bacteriological media to students of the First Year in the spring term. This is conducted in connection with Professor Penhallow's lectures upon Elementary Bacteriology.

3. A practical course upon the bacteriology of infectious diseases for students of the Third Year: two periods of two

hours each per week during the autumn term. The object of this course is to familiarize the student with the characters of the more common pathogenic bacteria and more particularly to render him proficient in the employment of the methods of clinical bacteriological diagnosis.

PARASITOLOGY.

The course of instruction given is, at present, optional. Its main features is a series of fifteen lecture-demonstrations, copiously illustrated by lantern slides. Each lecture lasts for three-quarters of an hour; the remaining fifteen minutes of the period are devoted to an examination of specimens, both microscopical and macroscopical, and to the answering of questions put by the students. Demonstrations of the special methods used in the study of animal parasites are given in the laboratory.

Since the most important and most serious of the diseases caused by animal parasites are due to protozoa, most attention is paid to these organisms and the diseases which are due to more highly organized animal parasites are but briefly mentioned. In the lectures, a broad view is first given of the importance of the protozoa as pathogenic agents and of the methods by which their importance as producers of disease has been discovered. The protozoa are then considered as a whole and their functions and characters are considered. Malaria is the best known and most completely studied of all the diseases caused by protozoa; analogies to what is known to occur in malaria are frequently discovered during the investigation of minor studies of pathogenic protozoa. For this reason the parasite causing malaria, its life, its transmission, and the means of destroying it, are studied with considerable thoroughness. The diseases caused by amœbæ, by piroplasmata, by trypanosomes, by spirochaetes and by protozoa of uncertain position are then considered, but with less detail than in the case of malaria. Only three lectures are spent on the worms and in alluding to those insects and other anthropoda which

are immediately harmful through their parasitism upon men and animals.

Some of the diseases of domestic animals and of plants are due to animal parasites. For this reason the Department of Parasitology is partly supported by Macdonald College—the College of McGill University which contains the Faculty of Agriculture. At present all the laboratory work of this department is carried out in the splendidly equipped laboratories of Macdonald College. Eventually it is expected that much of that work will be brought to the laboratories provided for Parasitology in the new medical buildings in Montreal.

PHARMACOLOGY AND THERAPEUTICS.

PROFESSOR:—A. D. BLACKADER, B.A., M.D.
ASSISTANT PROFESSOR OF PHARMACOLOGY:—J. W. SCANE, M.D.
DEMONSTRATOR:—J. L. D. MASON, M.D.

The work has been arranged as follows:—The course in Materia Medica and Pharmacy will be given during the latter part of the Second Year and will consist of lectures, demonstrations, and practical work by the student.

The course in Pharmacology will be given in the Third Year and will consist of a systematic course of lectures on the physiological action of drugs, with demonstrations, and practical laboratory work, in the course of which the student will be able to study by experiment the action of the more important remedial agents.

In the Fourth Year a systematic course on the therapeutic application of drugs and remedial measures will be given, and in the Fifth Year a series of lectures and demonstrations in Applied Therapeutics will be given in the lecture rooms of the Montreal General and Royal Victoria Hospitals.

The Eddie Morrice Laboratory, comprising pharmacological and chemical research rooms, has, through the liberality of Mr. Morrice, been fully equipped with all necessary apparatus for carrying on extended research work.

MEDICAL JURISPRUDENCE.

PROFESSOR:—GEO. WILKINS, M.D.
ASSISTANT PROFESSOR:—D. D. MACTAGGART, B.A.Sc., M.D.

This course is treated of in its medical as well as medico legal aspects. Special attention is devoted to the subject of blood stains, the chemical, microscopical and spectroscopic tests for which are fully described and shown to the class. The various spectra of blood in its different conditions are shown by the micro-spectroscope, so well adapted for showing the reactions with exceedingly minute quantities of suspected material. Recent researches in the diagnosis of human from animal blood are alluded to. In addition to the other subjects usually included in a course of this kind, Toxicology is taken up. The modes of action of poisons, general evidence of poisoning and classification of poisons are first treated of, after which the more common poisons are described, with reference to symptoms, post-mortem appearance and chemical tests. The post-mortem appearances are illustrated by plates, and the tests are shown to the class.

Practical demonstrations will be given weekly by Dr. Mac Taggart.

HYGIENE.

STRATHCONA PROFESSOR:—T. A. STARKEY, M.B., D.P.H., M.R.S.I.
DEMONSTRATORS:— { F. B. JONES, M.D., D.P.H.

Owing to the endowment of the Department of Hygiene by the Right Honorable Lord Strathcona, a teaching Laboratory has been established in connection with the chair of Hygiene. The compulsory course in Hygiene consists of two lectures per week throughout the winter and spring terms of the Third Year, supplemented by demonstrations dealing with the practical application of hygienic principles as well as the elementary chemistry and bacteriology of water, air, soil. foods and beverages. In addition, excursions are made per-

iodically to inspect some point of hygienic interest. The course also includes the hygiene of air, soil, water and climate; health resorts, personal hygiene, bathing, exercise, clothing, hygiene of special life periods; food and diet; food supply; food diseases and adulterations; hygiene of dwellings; heating, lighting and ventilation, sanitary fittings; municipal sanitation; water supply; sewage; drainage; refuse disposal; buriad of the dead; hygiene of occupation, offensive trades; hygiene of hospitals, prisons, etc.; preventive medicine; methods of dealing with infectious diseases and epidemics; communicable diseases of animals; organization of health boards; sanitary law and administration in relation to the medical practitioner; vital statistics in relation to the healthfulness of communities.

An optional practical course more advanced than the one above referred to will be open to students wishing to go into higher detail.

Special courses of instruction are given to graduates wishing to qualify themselves in sanitary work, or to obtain the diploma in Public Health (See "Diploma Course in Public Health," page 332.)

The Laboratory has been equipped with the apparatus needed in giving practical illustrations in Hygiene, either as demonstrations to large classes of students, or as practical work for smaller groups.

The museum contains working models and apparatus illustrative of the application of hygienic principles.

The arrangement is as follows:—

The Hygiene Department occupies the entire north end of the laboratory wing, having the floor space corresponding with that of the Department of Histology. The main laboratory is 60 x 50 feet , and it is well equipped with apparatus for demonstrations and practical work in Hygiene. Adjoining it is a balance room and private laboratory, 13 x 15 feet. Opening off the main laboratory is the museum, about 45 x 30 feet, which is well stored with full sized specimens and working models illustrative of all branches of Public Health.

MEDICINE AND CLINICAL MEDICINE.

PROFESSORS:—F. G. FINLEY, M.B., M.D.
H. A. LAFLEUR, B.A., M.D.
C. F. MARTIN, D.A., M.D.

ASSISTANT PROFESSOR:—W. F. HAMILTON, M.D.

LECTURERS:—G. GORDON CAMPBELL, B.Sc., M.D.
S. RIDLEY MACKENZIE, M.D.
A. A. BRUERE, M.D.
A. G. NICHOLLS, M.A., M.D.
JOHN MCCRAE, M.B.

LECTURER IN CLINICAL NEUROLOGY:—D. A. SHIRRES, M.D.

DEMONSTRATORS:—C. A. PETERS, M.D.
F. M. FRY, B.A., M.D.
H. B. CUSHING, B.A., M.D.
A. H. GORDON, M.D.
C. K. RUSSELL, M.D.
A. C. P. HOWARD, B.A., M.D.
C. F. WYLDE, M.D.
J. C. MEAKINS, M.D.

ASSISTANT DEMONSTRATORS:—A. G. MCAULEY, M.D.
J. G. BROWNE, M.D.
W. W. FRANCIS, M.D.
D. W. MCKECHNIE, M.D.
C. F. MOFFATT, M.D.

PRACTICE OF MEDICINE.

While the lectures on this subject are mainly devoted to Special Pathology and Therapeutics, no opportunity is lost of illustrating and explaining the general laws of disease. With the exception of certain affections seldom or never observed in this country all the important internal diseases of the body, except those peculiar to women and children, are discussed and their pathological anatomy illustrated by the large collection of morbid preparations in the University Museum, and by fresh specimens contributed by the Professor of Pathology.

The College possesses an extensive series of plates and models illustrative of the histological and anatomical appearances of disease, and the wards of the General and Royal Victoria Hospitals afford the lecturers ample opportunities to refer to living examples of very many of the maladies described, and to demonstrate the results of treatment. All didactic lectures will be given during the Fourth Year.

CLINICAL MEDICINE.

The instruction in Clinical Medicine is conducted in the theatres, wards, out-patient rooms and laboratories of the Royal Victoria and Montreal General Hospitals.

The instruction will extend throughout the Third, Fourth and Fifth Years. In the Third Year, demonstrations will be given to groups of students in the methods of examination, and in normal and abnormal physical signs, in the wards and out-patient departments of the Hospitals. This will be supplemented by courses in Clinical Chemistry and microscopy at the College.

Clinical instruction will also be given in the Hospital theatres to small groups of students and in the wards and out-patient departments.

In the Fourth Year, a systematic course of didactic lectures will be given, and clinical instruction will be given in the theatres and out-door departments of the Hospitals.

The Fifth Year will be devoted exclusively to hospital work. Each student will be required to personally conduct and record the routine examination of patients assigned to him in the wards of the Hospitals. He will also be required to carry out the necessary examination of blood, sputa and urine in the hospital laboratories and to attend and report on autopsies on patients assigned to him. Instruction in the theatres and wards will be given on four days of the week and, as occasion offers, joint sessions will be held with the pathological department in which the clinical and pathological features of certain cases may be compared.

The out-door department of each Hospital has a large neurological clinic, which will be utilized for instruction, and for teaching the uses of electricity in diagnosis and treatment.

Special clinics are also devoted to the diseases of children, and groups of students will attend in rotation.

Infectious diseases will be demonstrated to groups of students in the Fourth and Fifth Years, the large number of cases upder treatment at the Alexandra Hospital being available for this purpose.

HISTORY OF MEDICINE

PROFESSOR:—ANDREW MACPHAIL, B.A., M.D.

A course of twelve lectures will be given upon the History of Medicine to all undergraduates in the Faculty who desire to inform themselves upon the progress of the science. It is the intention to examine the causes which produced the varying conceptions of medicine in times past, rather than burden the student with a narration of facts and a recital of biographies.

SURGERY AND CLINICAL SURGERY.

PROFESSORS:— JAMES BELL, M.D.; GEORGE E. ARMSTRONG, M.D.

ASSISTANT PROFESSOR OF SURGERY:—J. M. ELDER, B.A., M.D.

ASSISTANT PROFESSORS:— A. E. GARROW, M.D.; J. A. HUTCHISON, M.D.

LECTURERS IN CLINICAL SURGERY:— J. M. ELDER, B.A., M.D.; KENNETH CAMERON, B.A., M.D.; E. W. ARCHIBALD, B.A., M.D.; W. L. BARLOW, M.D.

DEMONSTRATORS IN CLINICAL SURGERY:— C. B. KEENAN, M.D.; A. T. BAZIN, M.D.; A. R. PENNOYER, M.D.; R. P. CAMPBELL, M.D.; E. M. VON EBERTS, M.D.

DEMONSTRATORS IN ORTHOPOEDIC SURGERY:— W. G. TURNER, M.D.; A. McK. FORBES, M.D.

ASSISTANT DEMONSTRATORS IN CLINICAL SURGERY:— W. H. P. HILL, M.D.; C. K. P. HENRY, M.D.; J. W. HUTCHINSON, M.D.; F. McKENTY, M.D.; W. J. PATERSON, M.D.

PRINCIPLES AND PRACTICE OF SURGERY.

The course of didactic lectures on the Principles and Practice of Surgery and Surgical Pathology is illustrated by a large collection of preparations from the Museum, as well as by fresh specimens obtained from cases under observation at the hospitals and by lantern slides.

This course will cover the whole field of surgery and will thus include some of the rarer conditions which of necessity do not often come within the sphere of clinical teaching. It is intended to be, as far as possible, complementary to the clinical teaching and to deal mainly with those aspects of surgical diseases which cannot be fully dealt with by the clinical teacher. With this object in view the groups or classes into which surgical conditions naturally arrange themselves will be taken up and dealt with analytically instead of endeavouring to follow the systematic arrangement of the text-books For a full and systematic description of diseases the student is referred to the text-book.

Clinical Surgery.

The teaching in Clinical Surgery is conducted at the Montreal General and Royal Victoria Hospitals.

(1) In the amphitheatre of each of these hospitals, demonstrations are given and operations are performed before the Senior and Junior Classes on alternate days.

(2) Small ward classes of about ten men in each are taken through the wards daily by the surgeons in attendance, at each hospital, and instruction given at the bedside concerning the nature and management of surgical cases. Similar classes are also taken into the wards daily by the Surgical Assistants for instruction in diagnosis and reporting.

(3) Beds are assigned to students in rotation, and each student is required to carefully study and report cases and to assist in the surgical dressing of the same. Certificates of case reporting are given, and are essential to graduation.

(4) In the out-patient department students have an exceptionally good opportunity to study a great variety of injuries, to witness operations in minor surgery, to come into personal contact with patients and to take part in the application of a variety of surgical dressings and appliances.

OBSTETRICS AND DISEASES OF INFANTS.

PROFESSOR:—J. CHARLES CAMERON, M.D.

LECTURERS:—D. J. EVANS, M.D.
H. M. LITTLE, B.A., M.D.

DEMONSTRATORS:—H. R. D. GRAY, B.A., M.D.
J. W. DUNCAN, M.D.
H. C. BURGESS, M.D.

This course will embrace: (1) Lectures on the principles and practice of the obstetric art, illustrated by diagrams, fresh and preserved specimens, the artificial pelvis, complete sets of models illustrating the deformities of the pelvis, wax preparations, bronze mechanical pelvis, etc.; (2) bedside instruction in the Montreal Maternity, including external palpation, pelvimetry, the management and after-treatment of cases; (3) a complete course on obstetric operations with the Tarnier-Budin phantom; (4) the diseases of infancy; (5) a course of individual clinical instruction at the Montreal Maternity Hospital.

The full course of didactic lectures will be given in the Fourth Year at the College, together with the practice of palpation and operative procedures on the phantom. The Fifth Year instruction will be entirely clinical at the Montreal Maternity, and will consist of clinical instruction during labor and in the wards, together with palpation classes, phantom operative work, and general clinics weekly.

Particular attention is given to clinical instruction, and a clinical examination similar to that held in Medicine and Surgery, forms an important part of the Final Examination.

A short course of lectures on Diseases of Infancy is given, supplemented by clinical demonstration and ward work. The demonstrators give special demonstrations from time to time and take the students in groups for the purpose of examination and review.

GYNAECOLOGY.

PROFESSOR:—WM. GARDNER, M.D.

LECTURERS:—W. W. CHIPMAN, B.A., M.D.; F. A. L. LOCKHART, M.B.

DEMONSTRATORS:—DAVID PATRICK, M.D.; J. R. GOODALL, B.A., M.D.; H. M. LITTLE, B.A., M.D.

The didactic course consists of from forty to forty-five lectures given at intervals, alternating with the lectures on Obstetrics, and extending throughout the session. The anatomy and physiology of the organs and parts concerned are first discussed. Then the various methods of examination are fully described, the necessary instruments exhibited, and their uses explained.

The diseases peculiar to women are considered as fully as time permits, somewhat in the following order:—Disorders of menstruation; leucorrhœa; diseases of the external genital organs; inflammations, lacerations and displacements of the uterus; the infections of the pelvic peritoneum and cellular tissue and the uterine appendages; benign and malignant growths of the uterus; tumours of the ovary; diseases of the bladder and urethra. The lectures are illustrated as fully as possible by drawings, morbid specimens and lantern slides.

Clinical teaching, including out-patient and bed-side instruction is given at both the Royal Victoria and Montreal General Hospitals by Professor Gardner and Doctors Lockhart, Chipman, Patrick, Goodall and Little. A large amount of clinical material is thus available for practical instruction in this department of medicine. Numerous operations are done before the class and made the subject of remarks. In addition to the ward-patients, each Hospital conducts a large out-patient gynæcological clinic, to which advanced students are admitted in rotation, and instructed in digital and bi-manual examination and in the use of instruments for diagnosis.

Particular attention is thus given to clinical instruction, and a clinical examination in Gynæcology similar to that held in Medicine and Surgery, forms part of the final examination.

OPHTHALMOLOGY.

PROFESSOR:—J. W. STIRLING, M.B.

LECTURERS:—W. G. M. BYERS, M.D.
G. H. MATHEWSON, B.A., M.D.

DEMONSTRATORS:—F. T. TOOKE, B.A., M.D.
S. H. MCKEE, B.A., M.D.

This course will be made as practical as possible, and with this end in view the following scheme has been prepared:—

In the Fourth Year there will be a didactic course of about fifteen lectures, delivered at the University. The more unusual diseases of the eye will be fully described, while the commoner diseases will merely be touched on, the fuller consideration of the latter being reserved for the clinical lectures to be delivered in the Fifth Year. In addition, in the Fourth Year there will be tutorial classes on the methods of examination of the eye, the use of the ophthalmoscope, and the refraction of the eye.

In the Fifth Year there will be a regular course of clinical lectures at the Royal Victoria and Montreal General Hospitals, as well as a tutorial course on operations on the cadaver, and one on the bacteriology of the eye.

OTO-LARYNGOLOGY.

PROFESSOR:—H. S. BIRKETT, M.D.

DEMONSTRATOR OF RHINOLOGY, & LARYNGOLOGY:—H. D. HAMILTON, B.A., M.D.

DEMONSTRATOR OF OTO-LARYNGOLOGY:—W. H. JAMIESON, M.D.

DEMONSTRATOR OF RHINOLOGY AND LARYNGOLOGY:—R. H. CRAIG, M.D.

ASSISTANT DEMONSTRATORS OF OTO-LARYNGOLOGY:—H. S. MUCKLESTON, M.D.
HAMILTON WHITE, M.D.

This course consists of clinical instruction, carried on in the out-patient department of both the General and Royal Victoria Hospitals, on the diagnosis and treatment of diseases of the nose, throat and ear, including practical lessons on the use of the laryngoscope, rhinoscope and methods of examin-

ing the ear. The instruction is carried out with small classes, so that individual attention may be insured. A few didactic lectures are delivered on the more important diseases of the ear.

MENTAL DISEASES.

PROFESSOR:—T. J. W. BURGESS, M.D.

This course will comprise a series of lectures at the University on Insanity in its various forms, from a medical as well as from a medico-legal standpoint. The various types of mental diseases will be illustrated by cases in the Verdun Hospital, where clinical instruction will be given to visiting groups of senior students at intervals throughout the Session.

DISEASES OF INFANTS AND CHILDREN.

PROFESSORS:—J. C. CAMERON, M.D.; A. D. BLACKADER, B.A., M.D.

LECTURERS:—D. J. EVANS, M.D.; G. G. CAMPBELL, M.D.

DEMONSTRATORS:—W. M. FISK, M.D.; A. C. P. HOWARD, M.D.; F. M. FRY, B.A., M.D.

Although this subject does not constitute a special chair in the University, systematic instruction is given (*a*) in connection with the chair of Obstetrics and Diseases of Infants by Prof. Cameron; (*b*) by a course of lectures, clinical and didactic, by Prof. Blackader; and (*c*) through the Children's Clinic at the Montreal General and Royal Victoria Hospitals, at the Infant's Home and at the Montreal Foundling and Sick Baby Hospital.

CLINICAL MICROSCOPY.

This course, which is given during the winter term of the Third Year, is essentially a practical one and is in charge of Dr. A. A. Bruère, assisted by other teachers connected with the department of Clinical Medicine.

It is a laboratory course, forming part of the Third Year instruction in Medicine, and is held in the pathological laboratory of the Medical Building. The classes are held twice weekly, each demonstration lasting two hours.

Students are given instruction in the microscopic appearances of the normal and abnormal sediments in the urine, in the preparation and staining of films from pus and sputum for pathogenic bacteria, in the methods of examination of the blood, including the use of the hæmoglobinometer, hæmocytometer, microspectroscope, the determination of the specific gravity, the examination of fresh films, the preparation of stained blood films and the method of making differential leucocyte counts. The instruction also comprises the microscopic examination of stomach contents and fæces, for the recognition of abnormal cellular elements, fat, blood, bacteria and animal parasites; the examination of exudates and other pathological fluids obtained by puncture, and also the examination of hairs for the parasites of ringworm and favus.

In addition to this the student is given an opportunity of examining the various bacteria of importance in Clinical Medicine and Surgery.

Various specimens of special interest, which are found in the hospitals from time to time, are examined as occasion arises at the demonstrations.

DERMATOLOGY.

PROFESSOR:—F. J. SHEPHERD, M.D., LL.D., (Edin.)
LECTURER:—G. G. CAMPBELL, M.D.
DEMONSTRATOR:—W. P. BURNETT, M.D.

The course is entirely clinical, consisting of a weekly theatre clinic at the Montreal General Hospital, by Prof. Shepherd, on specially selected cases, and an outdoor clinic, by Drs. G G. Campbell, at the Montreal General Hospital, and W. P. Burnett at the Royal Victoria Hospital, throughout the Session. Lantern slides are made use of to illustrate the course; also a large series of colored plates and photographs.

Text Books.

ANATOMY.—Cunningham, Gray, Morris, Quain (Eng. Ed), Gerrish, Piersol.

PRACTICAL ANATOMY.—Cunningham's Practical Anatomy, Ellis's Demonstrations, Holden's Dissector and Landmarks.

DERMATOLOGY.—Stellwagon, Malcolm Morris, Walker's Introduction to Dermatology, Hyde and Montgomery, Crocker, Pusey.

PHYSICS.—Carhart and Chute, Elementary Physics.

INORGANIC CHEMISTRY.—Newth's Text-Book.

ORGANIC CHEMISTRY.—Remsen.

BIOLOGICAL AND CLINICAL CHEMISTRY.—Outlines of Physiological Chemistry, Beebe and Buxton; Clinical Chemistry, A. E. Austin.

For Reference.—General Chemistry for Colleges, A. Smith; Holleman's Organic.

PHYSIOLOGY.—Halliburton, Foster, Stewart, Mills's Text-Book of Animal Physiology, Howell's American Text-Book, Brubaker, Hall, Ott, Mills's Class Laboratory Exercises.

GENERAL PATHOLOGY.—Delafield and Prudden, Sidney Martin, Green, Ziegler, Well's Chemical Pathology, Adami's Inflammation, Coplin, Adami's General Pathology.

SPECIAL PATHOLOGY.—Stengel's American Text-Book, Ziegler, Coplin, Catalogue of McGill Pathological Museum.

PRACTICAL PATHOLOGY.—Mallory and Wright, Cattell's Post Mortem Technique.

BACTERIOLOGY.—Muir and Ritchie, McFarland, Park.

PRACTICAL BACTERIOLOGY.—Eyre, Connell.

PRACTICE OF MEDICINE.—Osler, Tyson, Wood and Fitz, J. M. Anders, Hare.

CLINICAL MEDICINE.—Rainey and Hutchison, Musser's Medical Diagnosis, Simon, Klemperer, Vierodt's Medical Diagnosis, Sahli's Diagnostic Methods.

HYGIENE.—Davies, Harrington, Abbott's Transmissible Diseases, Notter and Firth, Parks and Kenwood, Stevenson and Murphy.

HISTOLOGY.—Schafer's Essentials of Histology, Stohr, Szymonowicz, Bailey, Ferguson, Bohn and Davidoff.

OPERATIVE SURGERY.—Binnie, Treves, Kocher.

SURGERY.—Walsham, American Text-Book of Surgery, Da Costa, Rose & Carliss, Warren & Gould, Park.

MEDICAL JURISPRUDENCE.—Mann, Draper's Legal Medicine.

PRACTICAL THERAPEUTICS.—Ortner, Hare, Forscheimer, Shoemaker.

PHARMACOLOGY.—Dixon, Butler, Cushny, Sollman, Wood, Tyrode. (*For Reference,* United States Dispensatory, Remington Pharmacy.)

DISEASES OF CHILDREN.—Holt, Rotch, Ruhra, Forcheimer, Williams, Graetzer, Hecker and Trumpp. (Abt.), McCaw.

NERVOUS DISEASES.—Church and Peterson, 5th ed., Atlas of the Nervous System and its Diseases, Jacob, Starr.

MENTAL DISEASES.—Insanity and its Treatment, Blandford, 4th Ed. (*For Reference,* A Practical Manual of Insanity, Brown & Bannister, Kraft Ebing.)

OBSTETRICS.—Jewett, Hirst, American Text-Book, Jellet, Wright, and Evan's Pocket Text-Book, McGill Obstetric Note Book, Renouf's Obstetric Phantom.

DISEASES OF INFANCY.—Fischer.

GYNAECOLOGY.—Hart and Barbour, Dudley on Diseases of Women, Montgomery, Webster, Tod, Gillian.
BIOLOGY.—*Botany.*—Gray's Text-Book of Histology and Physiology; *Zoology,* Shipley and MacBride's Introduction to Zoology.
EMBRYOLOGY.—Heesler, Text-Book of Embryology.
OPHTHALMOLOGY.—Swantzy; The Commoner Diseases of the Eye, Wood & Woodruff; De Schweinitz; Fuchs.
OTO-LARYNGOLOGY.—Politzer (Ear), Watson Williams; Posey and Wright (Diseases of Nose and Throat and Ear, Vol. II.); Diseases of Nose, Throat and Ear, by Charles H. Knight, M.D.
MEDICAL DICTIONARY.—Gould, Dorland, Dunglison, Hoblyn.
PARASITOLOGY AND TROPICAL MEDICINE.—Manson, Tropical Diseases, 4th Ed., 1907. (Cassell & Co., London.). *Laboratory Hand-Book*; —Stephens & Christophers, The practical study of Malaria and Blood Parasites, 3rd Ed., 1908. (Williams & Norgate, London.); Brooke, Tropical Medicine and Hygiene, London, 1908.
For Reference:—Dantec, A., Le Pathologie exotique, 2nd Ed., 1905 (Octave Doin, Paris.); Neveu Lemaire, Précis de Pathologie humaine, 4th Ed., 1908 (Rudeval, Paris.); Mense, Handbuch der Tropenkrankheiten, 1905 (Barth, Leipzig.).

DOUBLE COURSES.

By special arrangement with the Faculty of Arts, it is now possible for students to obtain the two Degrees, B.A. and M.D. or B.Sc. and M.D., after only seven years of study. (For particulars see page 112.)

Double course students who intend to practice in the Province of Quebec, are required to matriculate and register with the Quebec Licensing Board not later that the end of their Third Year in Arts.

POST-GRADUATE AND ADVANCED COURSES.

The Faculty of Medicine in 1896 established post-graduate and special courses in connection with the Montreal General and Royal Victoria Hospitals and the various laboratories in the University buildings.

Commodious laboratories for advanced work have been equipped in connection with the Pathological and Clinical departments of both the Royal Victoria and Montreal General Hospitals, and in connection with the general laboratories for Pathology, Pharmacology, Physiology and Chemistry, recently altered and extended, in the new buildings of the Faculty.

Recent graduates of recognized universities desiring to qualify for examinations by advanced laboratory courses, or who wish to engage in special research, may enter at any time by giving notice, stating the courses desired and the time at their disposal.

All the regular clinics and demonstrations of both hospitals will be open to such students on the same conditions as to undergraduates in Medicine of this University.

The Post-Graduate Course of 1910.

The regular course of instruction for post-graduate students in the Faculty of Medicine will be given during the months of June, July and August.

A circular containing full information regarding courses, fees, etc., has been prepared and can be obtained on application to Dr. J. W. Scane, Registrar of the Faculty of Medicine.

SPECIAL COURSES IN HYGIENE.

In the session 1899-1900 the Faculty instituted a post-graduate course in Public Health and Sanitary Service and since that time other courses, as prescribed below, have been instituted.

Special instruction is given in this department, leading to the Diploma of Public Health; also for engineers, architects, and those wishing to include this subject in their final examination for the degree of Doctor of Philosophy (Ph.D.).

A small fee will be charged for each of the three last named courses.

(1) Diploma Course in Public Health.

Candidates undertaking this course must have possessed a Degree in Medicine, or other qualification for practice, for at least twelve months before he is competent to receive the diploma. The courses prescribed are as follows.

1. A course of lectures in Public Health (to be omitted in the case of candidates who have attended such a course before graduation).

2. A three months' course in Bacteriology, special attention being directed to the pathogenic organisms and parasites- such course to be omitted on presentation of proof that it has previously been taken.

3. A six months' course of practical study of out-door sanitary work under a medical officer of health (to be omitted in the case of medical health officers holding appointments prior to the establishment of this diploma course).

4. Three months' attendance and clinical instruction at a hospital for infectious diseases (unless such course has already been taken prior to graduation.)

5. Three months' instruction in sanitary chemistry and physics, with practical work in a chemical laboratory.

The examination for the Diploma shall cover the following subjects:—examination of clinical cases at an infectious hospital; the drawing up of outlines for annual and other reports of officers of health; a report upon the sanitary condition of some actual locality; the chemical analysis of liquids and gases and of specimens of food; demonstration of the consideration and use of meteorological hygienic and sanitary apparatus; microscopical examination of specimens submitted; description of specimens of human and other diseased tissues; practical examination in the employment of the usual bacteriological methods; the inspection of carcasses of animals to be used for food.

The above examination shall be written, oral and practical, and shall extend over a period of four days.

The following is a list of subjects included in the curriculum of study:—

(*a*) *Sanitary Chemistry*:—Examination of air, gases, water, the action of water on metals; milk, food and beverages; detection of poisons in articles of dress and of decoration; the chemistry of sewage.

(*b*) *Sanitary Physics*:—Principles of statics, pneumatics hydraulics, light, light and photometry, heat and thermometry, the principles of hygrometry, (only in their application to hygiene).

(*c*) *Sanitary Legislation*:—Statutes and by-laws relating to public health; the powers of public sanitary authorities.

(d) *Bacteriology and Parasitology*;—Modes of propagation of disease and transmission of disease between man and man, and man and animals; bacteriological analysis in relation to public health matters; natural history of microbes and animal parasites.

(*e*) *Vital Statistics*:—Calculation and tabulation of returns of births, marriages, deaths, and diseases.

(*f*) *Meteorology and Climatology*, including the geographical and topographical distribution of disease.

(*g*) *Preventive Medicine and Practical Sanitation.*

The fee for the Diploma, including laboratory fee, shall be $50.00.

(2) Course for Civil Engineers.

This course is given to meet the requirements of engineers, particularly those making a specialty of sanitary engineering. The object of the instruction is to elucidate the public health principles involved in engineering problems, *e.g.*, ventilation, water supplies, sewage disposal and drainage systems.

(3) Course for Architects.

Special instruction is given in those branches of public health relating to architectural work, *e.g.*, lighting and heating, ventilation, sanitary fixtures, draining and plumbing.

(4) Course for the Degree of Doctor of Philosophy,

Hygiene, or some particular branch of it, may be taken out as a minor subject in the final examination for the Ph.D. degree. Special arrangements are made to suit the student in order that the work done in this department shall be a supplement to his major subject taken out in Applied Science.

(5) Course for Promotion in the Army Medical Corps.

As hygiene forms one of the compulsory subjects in the examination for promotion in the Permanent Army Medical

Corps, special classes are held for the purpose of giving instruction in this subject—particular attention being paid to Military Hygiene.

The attendance in this class counts towards the requirements for the Diploma of Public Health.

Courses (2) and (3) can be commenced at any time during the session, and usually are of about three months duration.

A small fee will be charged for each of the Courses (2), (3), (4) and (5).

CLINICAL INSTRUCTION.

Few Medical Schools are able to offer such excellent facilities for clinical instruction as the Medical Faculty of McGill University. This is so, because of the extensive field afforded for such instruction in the Montreal General Hospital, the Royal Victoria Hospital and the Alexandra Hospital for Infectious Diseases.

Clinics are held regularly in all subjects in both the general hospitals, and tutorial instruction is given in the wards, out-patient rooms and laboratories of all three. Besides this, every facility is afforded in the Montreal Maternity Hospital for acquiring a practical knowledge of the various obstetric manipulations and the management and after treatment of cases. Full particulars regarding the character of this part of the work, with detailed descriptions of the Hospitals, are given in the Medical Calendar, which will be sent on application.

MUSEUMS.

The Faculty has during recent years devoted special attention to the development of its museums in the several departments in which objective teaching is of especial value in the education of the student.

The Anatomical Museum was completely destroyed, and the Museum of Pathology seriously damaged by the fire of three years ago in the Medical buildings. Both these departments are, however, rapidly collecting specimens which will be housed in the splendid museum which has been made a fea-

ture of the New Medical Building. Many specimens have already been received from the Army and Navy Museum of Washington, D.C., from the University of Edinburgh, and from other institutions. The Museum of Public Health and Preventive Medicine and the Museum of Pharmacy were not damaged, and are still available for teaching purposes.

Each collection is arranged and selected with the primary object of making it a teaching museum. The several collections are open to students and the public between 9 a.m. and 6 p.m.

LIBRARY.

LIBRARIAN:—PROF. F. G. FINLEY.
ASSISTANT LIBRARIAN:—MISS M. R. CHARLTON.

The Library of the Medical Faculty now comprises upwards of thirty thousand volumes, the largest special library connected with a medical school on this continent.

The valuable libraries of the late Professors Robert Palmer Howard, George Ross, Richard L. MacDonnell, T. Johnston Alloway and of Dr. Allen Ruttan have been donated to the Medical Faculty; and also those of the Montreal Veterinary Medical Association and of the Society of Comparative Physiology.

The Faculty is also indebted to Dr. D. McEachran for the fine library of the late Dr. Gadsden, and for a large number of rare and valuable works bearing on comparative medicine.

The standard text-books and works of reference, together with complete files of the leading periodicals, are on the shelves. Students may consult any work of reference in the library between 9 a.m. and 6 p.m., and from 7.30 to 10.30 p.m.

A large reading room has also been provided for the teachers and students of this Faculty.

McGILL MEDICAL SOCIETY.

This Society, composed of registered students of the Faculty, meets every alternate Friday during the autumn and winter terms, for the reading of papers, case reports and dis-

cussions on medical subjects. A prize competition has been established in Senior and Junior subjects, the Senior being open to all to write upon, while only the First, Second and Third Year students are allowed to compete in the Junior subjects. The papers are examined by a board elected from the Professoriate, and a first and second prize in each division of subjects is awarded to the successful candidates.

Names of competitors and titles of papers must be sent to the Chairman of the Programme Committee before September 1st, and all papers are subject to the call of the Committee on October 1st. All papers must be handed in for examination on or before January 10th.

The students' reading room, in which the leading English and American Medical Journals are on file, as well as the leading daily and weekly newspapers of the Dominion, has been placed under the control of this Society.

SPECIAL INFORMATION REGARDING THE COURSE IN DENTISTRY.

THE SESSION 1910-1911 WILL OPEN ON TUESDAY, OCTOBER 4TH, 1910. STUDENTS MAY REGISTER AT ANY TIME DURING THE PRECEDING WEEK.

The course in Dentistry extends over four sessions of eight months each and leads to the Degree of D.D.S. The lectures of the first two years will be given, and the laboratory and other practical work done in the Dental Department in the New Medical Building. The work during the last two years and part of the second, consisting largely of clinical work and having special reference to Dentistry proper, will be carried on chiefly in the Dental Clinic of the Montreal General Hospital.

MATRICULATION.

Students in Dentistry must pass the matriculation examination required of students in Medicine, for particulars of which see page 24. Those who intend to practise in the Province of Quebec must pass the matriculation examination of the Dental Association, if they do not hold a Degree in Arts or Medicine from a recognized British or Canadian University. A certificate of having passed this examination will be accepted as a full equivalent for the matriculation examination of this University.

The fee for the Dental Association examination is $20.00 and is payable to the Secretary, Dr. Eudore Dubeau, 396 St. Denis Street, Montreal, from whom all further information can be obtained.

FEES.

See page 78.

ADMISSION TO PRACTICE.

In accordance with the provisions of the Dental Act, candidates intending to practise in the Province of Quebec must

sign indentures, before a Notary Public, with a licentiate of Dental Surgery in active practice in the Province, four years before being admitted to the profession. He should, therefore, register with the Dental Board at the beginning of his College course.

The requirements for admission to study and practice in the other provinces of the Dominion (British Columbia excepted) may be learned by corresponding with the secretary of the Dominion Dental Association.

REQUIREMENTS FOR THE DEGREE.

The Degree of Doctor in Dental Science (D.D.S.) will be conferred only on candidates who (1) have attained the full age of twenty-one years, (2) are of good moral character, (3) have attended for four regular sessions, (4) have paid all the required fees, and (5) have passed the prescribed examinations.

COURSE OF STUDY.

FIRST YEAR:—Anatomy; Practical Anatomy, Physics, Inorganic Chemistry, Practical Chemistry, Histology, Botany, Zoology and Embryology, Bacteriology.

SECOND YEAR:—Anatomy and Practical Anatomy (course completed at Christmas), Physiology, Practical Physiology, Organic Chemistry, Bio-Chemistry, Histology, Pharmacy, Pharmacology, Operative Dental Technique, Prosthetic Technique and Dental Anatomy.

THIRD AND FOURTH YEARS:—General Pathology, Bacteriology, Operative and Mechanical Dentistry, Crown and Bridge-Work, Practical work in infirmary, Dental Pathology, Materia Medica, Orthodontia, and Dental Surgery.

UNIVERSITY BUILDINGS.

THE CENTRE BUILDING.

This building, the first and oldest building of McGill College, contains the lecture-rooms of the Faculty of Arts, and the botanical laboratories, in the centre. The East Wing contains the newly equipped zoological laboratories, the offices of the Administration, and the lecture rooms of the Faculty of Law. The West Wing (the old Molson Convocation and Examination Hall) is now used for examination purposes only.

The botanical laboratories are described in detail on page 346, the zoological laboratories on page 359.

MACDONALD CHEMISTRY AND MINING BUILDING.

Admirable facilities are afforded in the Macdonald Chemistry and Mining Building for study and research in the departments of Chemistry, Metallurgy, Mining, Mineralogy and Geology. The building was erected, equipped and endowed by Sir William C. Macdonald. It is spacious, admirably lighted, heated by hot water and ventilated by electric fans. In addition to the large Lecture Theatre, which seats about 250 students, there are four lecture rooms for smaller classes, and a number of offices.

There are three large general Chemical laboratories, large laboratories for Ore-dressing and Metallurgy and a number of smaller rooms for special purposes, including research work. Among the special laboratories may be mentioned those for Organic Chemistry, Physical Chemistry, Electrolytic Analysis, Gas Analysis, Iron and Steel Analysis, Fire Assaying, Water Analysis, Determinative Mineralogy, Petrography, Photography, etc.

The Library contains a valuable collection of the most recent English, French and German books, and sets of various journals and transactions, including the Berichte der Deutschen Chemischen Gesellschaft, Journal für Praktische Chemie, Chemisches Centralblatt, Fresenius' Zeitschrift für Analytische Chemie, Annales de Chemie et de Physique, Journal of the Chemical Society, Journal of the Society of Chemical Industry, Chemical News, Mineralogical Magazine, Mineralogische und Petrographische Mittheilungen, etc. The library is open to students under such restrictions as are necessary to prevent damage or loss of books.

The rooms for allied purposes have, as far as possible, been grouped together on the same floor, and there is a hydraulic lift running from the basement to the attic. The offices and principal laboratories and supply rooms are also connected by a system of telephones. The building is practically fire-proof.

A detailed description of the laboratories and their equipment is given on page 347

THE CONSERVATORIUM OF MUSIC.

The Conservatorium of Music is situated at the corner of University and Sherbrooke Streets, adjoining the University Grounds. It contains, besides the offices of the Director and Secretary, on the first floor a small concert hall furnished with a three manual and pedal pipe organ. The rooms on the second and third floors are suitably fitted up for purposes of instruction.

THE MACDONALD ENGINEERING BUILDING.

The new building, which has been erected on the site of the old one destroyed by fire on the 5th of April, 1907, was ready for the reception of students at the opening of the session 1908-1909. It is designed to provide accommodation for six hundred students. The Departments of Civil Engineering, Architecture and Transportation are permanently provided for in this building, while the Departments of Electrical and Mechanical Engineering are given temporary accommodation until such time as independent buildings can be provided for their growing numbers, but this temporary accommodation is for the present quite ample. The ground floor is given up to the Civil Engineering, Geodetic, Electrical and Mechanical Engineering laboratories and is for the most part 23 feet in height. Mechanical and Electrical Engineering Laboratories and the Workshops also occupy the three lower floors of the Workman Building. The centre portion of the first and second floors is used for purposes of administration (Faculty Room, offices, library, etc.). The front parts of the second and third floors are occupied by eight classrooms, which contain 470 sittings, while the upper floors both of the Engineering Building and the Workman Building are devoted to drafting rooms containing over 500 tables.

The building throughout is of the most approved fire-proof construction, not only in the matter of materials, but in arrangement as well, the several floors being divided by fire walls and fire doors into separate sections. A repetition of the disaster of 1907 will be impossible, as the areas which could be attacked by fire are very limited and all the floors and partitions are incombustible. Particular attention has been given to the heating and ventilating system, with eminently gratifying results.

The building has been erected at a cost of about half a million dollars and is considerably larger than the old one. Very little of the splendid laboratory equipment in the old building was destroyed, and as a great deal has been received in the shape of donations and acquired by purchase in the meantime, the laboratories will, generally speaking, be much better adapted for teaching purposes than they were before.

A detailed description of the laboratories and workshops and their equipment will be found on pages 346 et seqq.

THE UNIVERSITY LIBRARY.

The general library is housed in the fine Romanesque building erected in 1893 by the late Mr. Peter Redpath.

Dignified and convenient as originally designed, it was improved and greatly enlarged in 1900, by the late Mrs. Peter Redpath. It

now possesses ample accommodation for three hundred and fifty readers, of whom fully one hundred can be provided for in the seminary rooms and special studies.

The main architectural feature of the interior is the general reading room, 110 feet long, 44 feet wide, 34 feet high. It will seat one hundred and fifty readers and has open shelves for about 4,000 volumes.

The book stack, four and five storeys high, of approved type, excellently lighted and ventilated, with four reading bays on each storey, has a working capacity of 250,000 volumes, besides special provision for the storage of maps and of newspapers.

A description of the collections and other particulars are given on page 364.

THE MEDICAL BUILDING.

Before the fire in April, 1907, this building was the largest on the University campus, the total length being 280 feet and the maximum width 145 feet, with a capacity of about 1,750,000 cubic feet. In 1908, the erection of a modern and magnificent new Building (to cost over half a million dollars) was begun on a new site, and by the opening of the Session 1910-1911 two-thirds of it will be available for teaching purposes. That portion of the old Building which was saved from the fire will also be used by certain departments.

THE OBSERVATORY.

Latitude, N. 45° 30′ 17″. Longitude, 4h. 54m. 18s. 67.
Height above sea level, 187 feet.

The Observatory, in which courses of instruction are given in the use of meteorological instruments and in astronomical work, is situated at the head of the University campus.

Meteorological observations.—Records of temperature, atmospheric pressure, wind velocity and direction, and sunshine are obtained by self-recording instruments. Check observations are made at 7.40 a.m., 3 p.m., and 7.40 p.m. on standard instruments.

Soil temperatures are observed, in co-operation with the Physical Laboratory, by means of platinum thermometers at depths ranging from one inch to nine feet.

The astronomical equipment consists of: The Blackman Telescope (6¼ in.); a photoheliograph (4½ in.); a 3¼ in. transit with Repsold micrometer recorder, a prismatic (8 cm.) transit instrument, also arranged as a zenith telescope; two sidereal clocks, one being a Riefler movement in an air tight case; one mean time clock; several sidereal and mean time chronometers; one chronograph; batteries, telegraph lines, and minor instruments.

Observations for clock errors are made on nearly every clear night. Time exchanges are regularly made with the Toronto observatory. Time signals are distributed throughout the city by means of the noon time-ball, continuous clock signals, and the fire-alarm bells; and to the country through the telegraph lines.

The longitude of the Observatory was determined in 1892 by direct telegraph connection with Greenwich, with exchange of observers and instruments.

In addition to the usual standard meteorological instruments the Observatory is equipped with a Richard barograph, a Richard thermograph and a Calendar thermograph, the latter being employed for differential temperatures between the summit of Mount Royal and the Observatory. The anemometer and vane giving records by electrical connection with the Observatory are situated on the summit of Mount Royal at a point about ¾ of a mile northwest of the Observatory. They are 57 feet above the surface of the ground and 810 feet above sea-level. The rainfall of the station is also measured by a self-recording electrical instrument.

THE MACDONALD PHYSICS BUILDING.

The Macdonald Physics Building, another of Sir William C. Macdonald's gifts to the University, contains five storeys, each of 8,000 square feet area. Besides a lecture theatre and its apparatus rooms, the building includes a large elementary laboratory nearly 60 feet square and a smaller one for a more elementary course; large special laboratories arranged for higher work by advanced students in heat and electricity; a range of rooms for optical work and photography; separate rooms for private thesis work by students; and two large laboratories arranged for research provided with solid piers and the usual standard instruments. There are also a lecture room, with apparatus room attached, for Mathematical Physics, a special physical library, and convenient workshops. The equipment is on a corresponding scale, and comprises (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by the students in practical work; (3) the various types of all important instruments for exact measurement, to be used in connection with special work and research.

A detailed description of the laboratories and their equipment is given on page 354.

THE PETER REDPATH MUSEUM.

This building was erected in 1882 by the liberal benefactor whose name it bears. It occupies a commanding position at the upper end of the campus, and besides its central hall and other rooms devoted to the collections, contains a large lecture-theatre, class-rooms, and work-rooms.

THE POWER STATION

The new Power Station supplies heat to the following buildings:—New Medical Building, Old Medical Building, Engineering and Workman Buildings, Chemistry & Mining Building, Physics Building, Arts Building, the Museum and the Library. It is also furnishes current for light and power to the first five of these buildings.

The equipment of the station includes boilers of 1,000 H.P. nominal capacity, provision being made for future extension, and engines and generators of 600 kilowatt capacity. The coal bunkers hold 500 tons.

The heating distribution is partly by tunnel and partly by underground conduit, the farthest building served being at a distance of 700 feet from the station. Electric cables are placed underground in vitrified clay conduits.

THE ROYAL VICTORIA COLLEGE FOR WOMEN.

This residential college for the women students of McGill University, erected and endowed by Lord Strathcona and Mount Royal, is situated on Sherbrooke Street in close proximity to the University buildings and laboratories. The professors and lecturers of the University are thereby enabled to give their services in the conduct of the College classes.

Full particulars regarding the College, terms of residence, etc., are given under "Royal Victoria College."

STRATHCONA HALL.

This building—the home of the Young Men's Christian Association of McGill University—is the property of the Association, and is not, therefore, strictly speaking, a University building.

Strathcona Hall is 55 feet wide by 110 feet deep, and is five storeys in height. The three upper storeys are arranged to afford residential accommodation for about 67 men. The rooms on these floors are of various sizes. They are, for the most part, single, but some of them are arranged en suite. Each floor is amply provided with baths, etc., of the most modern type.

The second floor contains a large reading-room, a large game room, and five small rooms to be arranged as studies or for the use of various clubs and societies. The apartments of the General Secretary of the Association are also on this floor.

The Secretary's Office is on the ground floor, which also contains sitting rooms, cloak rooms and a hall, capable of seating 350 persons.

The basement, which is high and well lighted, has a bowling alley, as well as a large room in which a second-hand Book Exchange is conducted during the opening weeks of the college session, and which throughout the session, is used in connection with the social work of the Association.

The building is throughout of the most modern type of construction, and is absolutely fire-proof.

THE McGILL UNION.

The McGill Union stands on a convenient site at the corner of Sherbrooke and Victoria Streets, within two minutes' walk of the College gates. The building measures 93 feet by 71 feet, and consists of three storeys and a basement. It has been erected and furnished by Sir William Macdonald at a cost of over $135,000. The building externally is an example of a severe type of English classic, executed in the local grey stone.

The main floor, entered from Sherbrooke Street, is devoted to dining and luncheon rooms. The dining room (table d'hôte and à la carte) will accommodate 120 at a time, and the luncheon room 80. It is, therefore, possible to serve at least 500 students between the hours of 12 noon and 2 p.m.

On the second floor, billiard rooms, a news hall, a reading-room and library, a study and a lounging gallery (88 feet by 21 feet) are provided.

The Great Hall, suitable for debates, public meetings, &c., is situated in the top storey. The hall measures 88 feet by 45 feet, and has a total seating capacity of 400. Adjoining the Hall is the Music Room, and at the top of the building four bed-rooms will be found set aside for graduate members re-visiting the City.

The basement is divided between the kitchen and offices, the caretaker's quarters, baths, locker rooms, laboratories and an exercise room 24 feet by 38 feet for boxing and fencing.

The Union has now been in existence for three years and is rapidly becoming the centre of all student activities. Membership is open to all students of the University, without restriction, on payment of the annual fee of $5.00. This fee may be paid to the Bursar of the University or to the Secretary of the Union.

LABORATORIES, MUSEUMS, AND WORKSHOPS.

1. LABORATORIES.

ASSAYING LABORATORY.

See Mining and Metallurgical Laboratories.

ASTRONOMICAL OBSERVATORY.

See Geodetic Laboratory.

BOTANICAL LABORATORIES.

The Botanical Laboratories occupy the upper floor of the central Arts building.

The laboratory for general Morphology provides table accommodation for twenty students, and is equipped with all the necessary appliances for the practical study of plants, either fresh or dry.

In connection with this laboratory, a large collection of dried plants is maintained, from which material is drawn for practical work.

The laboratories for special Morphology at present afford accommodation for twelve students. Each table is provided with a complete outfit of instruments and reagents. Provision is also made for accurate micrometic work and for the production of accurate drawings by means of the camera lucida and Leitz's drawing instrument. More special instruments, including polariscope, spectroscope and photographic apparatus, afford opportunity for detailed studies in these several directions. A supply of physiological apparatus permits the demonstration through actual experimentation, of some of the more prominent plant activities as expressed in movement, transpiration, respiration, geotropism, movement of the nutrient fluids, rate of growth, etc.

An investigator's table held by the University at the Biological Laboratory, Wood's Hole, Massachusetts, is available for such students as may successfully complete the advanced course of the Third and Fourth Years.

Properly qualified graduate students are eligible to the occupation of tables for the investigation of problems in marine biology, at any one of the stations administered by the Board of Directors of the Biological Stations of Canada.

CEMENT LABORATORY.

The equipment of the laboratory renders it possible to carry out complete tests of the strength and properties of cements, mortars, concretes, concrete beams, etc., and includes:—

(*a*) Three one-ton tensile testing machines, representing the best English and American practice.

(*b*) One 50-ton hydraulic compressive testing machine.
(*c*) Volumenometers for determining specific gravity and for determining the carbonic acid in the raw material.
(*d*) Faija steaming apparatus for blowing tests.
(*e*) Mechanical hand and power mixers.
(*f*) Apparatus for determining standard consistency.
(*g*) Vicat's and Gilmore's needles for determining set.
(*h*) Weighing hopper, spring and other balances.
(*i*) Gun metal moulds for tension, compression and transverse test pieces, and special apparatus for placing mortar into the moulds under a uniform pressure, which, together with the mechanical mixers enable the personal errors to be eliminated.
(*j*) Sieves of 20, 30, 40, 50, 60, 70, 80, 100, 120, and 180 meshes per lineal inch for determining the fineness.
(*k*) A Boehme hammer, with all accessories.

The laboratory is also fitted with copper-lined cisterns, in which the briquettes may be submerged for any required time, and with capacious slated operating tables, bins and tin boxes for keeping the cement dry for any period.

A large amount of work is done each year by the third year students, in investigating the specific gravity, fineness, setting properties, constancy of volume, and the tensile, compressive and transverse strengths of cement, both neat and with sand.

CHEMICAL LABORATORIES.

(*In the Chemistry and Mining Building.*)

The three principal laboratories have each a floor-space of about 2,400 square feet, and together have accommodation for nearly two hundred students working at a time. They are lighted on three sides, and have ample hood space. One is intended for beginners, and the other for more advanced work, more particularly in qualitative and quantitative analysis. In connection with each of the main laboratories is a balance-room, equipped with balances by several of the best makers.

Physical Chemistry is provided for in a special laboratory, nearly 30 by 40 feet, lighted from the north, and supplied with electricity, steam, vacuum pumps, etc. The equipment of this department consists of the apparatus necessary for the determination of the specific gravities of solutions, of the depression of freezing point, of the rise of boiling point, and of densities of gases and vapours. There are constant-temperature baths for accurate measurement of solubilities, Kohlrausch's apparatus for determining the electrical conductivity of solutions, and the apparatus necessary for measuring the electromotive forces generated between metals and their solutions, and in voltaic cells generally. There are also calorimeters for measuring the heat effects produced in chemical reactions. On the same floor there is an optical room, devoted more particularly to crystallographic work and furnished with goniometers, polarising microscopes, axial-angle apparatus, refractometers, etc. Other forms of apparatus will be added as required for research work.

Immediately adjoining the laboratory of physical chemistry is the photographic department, supplied with two dark rooms, arranged on

the maze system, and provided with the necessary appliances for all ordinary photographic work, including an enlarging camera and apparatus for micro-photography.

The laboratory for gas analysis has a northern exposure, and is fitted with a large tank to contain water at the temperature of the room, for use in obtaining a constant temperature in the measurement of gases. The tables are arranged for work with mercury, and the laboratory is supplied with the apparatus of Hemple, Dittmar, Orsat, Elliot and others. It contains also Fleuss, Boltwood, and Töpler pumps for producing high vacua.

The laboratory for electrolytic analysis is supplied with accumulators, thermopile, platinum electrodes, rheostats, ammeters, voltmeters, etc.

Another room has lately been equipped with electric furnaces and other appliances for electro-chemical work.

The organic department comprises a laboratory for preparations and research, a combustion room for analysis, a dark room for polariscope and saccharimeter work, and a lecture room. The laboratory is fitted with all the necessary apparatus for organic research—special hoods for work with poisonous gases, regulating ovens for digesting and drying at various temperatures, filter presses for the extraction of raw materials, and various forms of apparatus for distillation in vacuo. The dark room is equipped with polariscopes and saccharimeters for sugar work. There is a large supply of the necessary organic chemicals, which are supplied free of charge to students engaged in routine or research work in this department.

The laboratory for determinative mineralogy has places for 28 students, and is supplied with abundant materials for practical work. It adjoins the lecture-room in which the lectures in advanced mineralogy are delivered. The mineralogical department is also provided with suitable machinery, run by electricity, for the cutting and polishing of minerals and rocks.

ELECTRICAL LABORATORIES.

The several electrical laboratories are the Standardizing Laboratory, the Fourth Year Dynamo Laboratory, the Third Year Dynamo Laboratory, the High Tension Laboratory, the Photometer Room and the Oscillograph Room. Power is supplied in the form of direct current from a number of independent sources and converted when alternating current is required by motor generator sets or by inverted rotaries. The equipment of the laboratories includes, besides the usual current-limiting and controlling devices, of an ample supply of voltage, current, power, speed, etc., and metering instruments, and practically all of the principal types of commutating, synchronous and induction machinery.

(*a*) The Standardizing Laboratory is equipped with a Weston laboratory standard ammeter, range with shunts, .075 to 500 amperes; a Weston laboratory standard D. C. voltmeter, range with multipliers 0 to 3000 volts; Weston laboratory standard wattmeters; a special Weston Potentiometer for current and e.m.f. measurement; a Leeds & Northrup Conductivity Bridge, standard resistances from a fraction of an ohm to a megohm, standard cells, standard capacities, etc., etc.

Alternating currents of several wave shapes and frequencies from 15-150 periods per second and voltages up to 200,000 are available.

Direct current is provided from a 300 kilowatt-hour battery.

(*b*) The Fourth Year Dynamo Laboratory.—In this laboratory, which is situated on the ground floor of the Engineering Building, all dynamos are motor driven. Speed regulation is attained either by varying the voltage supply to the motor or by varying the motor field current. Power is obtained from three independent sources of supply, two 75 k.w. D. C. direct connected units in the service plant and one 300 k.w. hour storage battery. All generators and motors are mounted on strong testing benches of different heights with slotted floor, so that any machine when placed on the bench may be quickly secured in any desired position. These benches are supported on longitudinal slotted rails and may be moved to any position in the laboratory and there bolted to the rail. An overhead 3 motor electric travelling crane permits of rapid transference of machines. All wiring is done below the floor level in passages provided for the purpose and special switchboards are provided for current distribution. Special testing tables fitted with switches, circuit breakers, etc., facilitate the work. Sixteen alternating current machines, including single, two and three phase generators, synchronous motors, alternating current commutating motors, synchronous converters, together with stationary and rotary induction apparatus are provided for alternating work. Large variation of wave form may be obtained by the use of specially shaped inductors and field poles. Induction motors with wire wound rotors serve as induction generators and frequency changers. The laboratory is likewise provided with about one hundred voltmeters, ammeters and wattmeters of standard make and of different ranges; also speed indicators, condensers, rheostats, standard resistances, etc., etc.

(*c*) The Third Year Dynamo Laboratory.—This laboratory, situated on the second floor of the Workman building, is similar in design to the Fourth Year Laboratory, all generators being motor driven and mounted on convenient benches, and similarly supplied with power. One hand operated travelling crane facilitates the movement of the machines. It is equipped with twenty to thirty commutating machines; constant potential generators of various types; shunt, series and compound wound motors; variable speed motors, boosters, dynamotors, closed and open coil constant current machines, varying in capacity to 40 kilowatts of many different makes. Some seventy-five voltmeters and ammeters are also provided, as well as the usual accompaniment of starting boxes, controllers, rheostats for absorbing power, etc.

(*d*) High Tension Laboratory.—This laboratory is equipped with a D.C.—A.C. motor generator set and four 10 K.W. 200-50,000 volt 60 cycle transformers, and one 5 K.W. 100-25,000 volt 60 cycle transformer, with switchboard and suitable controlling devices. Current and voltage transformers and 100,000 volt direct reading Kelvin electrostatic voltmeter are also provided.

(*e*) The Photometer Room.—This room is equipped with standard photometric apparatus for candle power measurements of arc and incandescent lamps.

(*f*) Oscillograph Laboratory.—This laboratory is equipped with a Blondel triple oscillograph, complete with photographic attachments.

GEODETIC LABORATORY

The equipment of this laboratory consists of:—

(1) Linear instruments.
  (*a*) A Rogers comparator and standard bar for investigating standards of length.
  (*b*) A fifty-foot standard and comparator for standardizing steel bands, chains, tapes, rods, etc.
  (*c*) A Whitworth end-measuring machine and set of standards.
  (*d*) A Munro-Rogers linear dividing engine.
(2) Circular instruments.
  (*a*) A Rogers' circular comparator and dividing engine.
  (*b*) Four level triers.
(3) Time.
  (*a*) An astronomical clock and clock circuit in connection with the observatory clocks.
  (*b*) Chronometers running on mean and sidereal time.
  (*c*) Chronograph.
(4) Gravity.—A portable Bessel's reversible pendulum apparatus with special pendulum clock and telescopic apparatus for observing coincidences of beats.
(5) A water gauge apparatus for testing aneroid barometers.

The laboratory and clock rooms are constructed with double walls and enclosed air spaces, and their heating is controlled by special thermostats, so that the temperature within may be brought to, and held at, any desired degree.

The ordinary course of instruction in this laboratory is described on page 274.

Astronomical Observatory.

The observatory equipment for the purpose of instruction in practical Astronomy consists of:—

1. A Bamberg prismatic transit with zenith attachment.
2. Five astronomical transits for meridian observations.
3. A Troughton & Simms zenith telescope.
4. An astronomical transit in the prime vertical.
5. Sidereal and mean time clocks and chronometers.
6. Chronograph and electrical circuits by which observations and clock comparisons within or without the observatory may be made.

HYDRAULIC LABORATORY.

In this laboratory the student studies experimentally the laws governing the flow of liquids through orifices, pipes, weirs, etc., and also carries out experiments on the efficiency of various forms of water motors running under different conditions as regards head and supply.

The equipment includes:—Apparatus for the measurement of the discharge of water from orifices, nozzles, weirs, etc., under varying conditions; arrangements for investigation of the loss of head by surface friction, and at curves and bends in pipes; Venturi meter for use at different discharges; a hydraulic ram working against different heads;

various water motors, including Pelton wheels, Girard impulse turbine, Brotherhood three cylinder rotary engine, Thomson inward flow reaction turbine, American turbine; apparatus for measurement of pressure due to impact of jets on surfaces of different forms; gauge testing appliances; Hele Shaw's apparatus for study of the stream lines in a perfect fluid, illustrating the flow round obstructions in a channel, lines of stress in plates, and numerous magnetic problems; numerous calibrated tanks, weighing appliances, and measuring apparatus in connection with the above.

MECHANICAL ENGINEERING LABORATORY

The equipment of this Laboratory includes:—A belt-testing machine, capable of taking a six-inch belt at 15 feet centres (the machine includes special hydraulic dynamometers and a friction brake, and will absorb 15 H.P.); a Thurston railway-pattern oil-tester, fitted with water cooling and heating apparatus for varying the temperature of the brasses as desired; an Engler standard viscosimeter, and other necessary apparatus for the physical testing of lubricants; a specially designed hydraulic support and fittings for carrying out experiments on the action of cutting tools in the lathe; apparatus for experiments on the efficiency of pulleys and hoisting appliances, and on the efficiency of worm and other gearing; apparatus for governor-testing; apparatus for studying problems connected with the balancing of reciprocating engines; apparatus for testing of fans and blowers.

The Laboratory is used in connection with the courses in Mechanical Engineering subjects.

METALLURGICAL AND ASSAYING LABORATORIES

These consist of a large furnace room of 2,200 sq. feet, for metallurgical operations, a furnace room for assaying of 1,300 sq. feet, a balance room, small chemical laboratory, and parts of other rooms, which are utilized for pyrometric and photo-microscopic work. The furnace room is fitted with a water-jacket blast-furnace, 21 inches inside diameter, for smelting lead and copper ores; also a hand reverberatory furnace for roasting ores, having a hearth 14 ft. by 6 ft., a Bruckner roasting furnace, and English cupellation furnace and a small gas producer.

It has also a large lead-lined chlorination-barrel for high pressures, with filter press, air pump, etc.

The furnace room adjoins the milling and ore dressing room (see below) and ores which have been crushed and dressed can easily be conveyed into the furnace room for roasting, smelting or leaching treatments.

In addition to this comparatively large scale plant, apparatus is being provided to enable the students to study in detail the more important metallurgical operations using quantities of ore or metallurgical products of usually not more than a few pounds in weight. With such appliances the work of the student can be of a more individual character than is generally possible with large scale plant, and the reactions which occur can be more easily and exactly studied.

For the purpose of small scale work there is a large crucible furnace which can be used with either natural or forced draught, a large

gas furnace which can be used either as an oven furnace or a muffle furnace, and a number of small muffle and crucible furnaces in the assaying laboratory.

Small blast-furnaces, lined with brick, have been constructed, and used successfuly for smelting small quantities of copper and Cobalt ores. A Roots' blower has been provided for the blast furnaces, and connections for supplying forced draft have been made to the gas and reverberatory furnaces. Leaching operations on a small scale are conducted in stoppered bottles which can be agitated by machinery.

Provision has recently been made for electric furnace work. The plant consists of a 50 H.P. motor, 30 K.W. alternating current generator and transformer with measuring instruments. A Colby induction furnace and a Heroult arc furnace have been installed for making steel electrically, and the smelting of ores and other electric furnace operations can be carried on satisfactorily with this plant. A low voltage 1 H.P. direct current generator is employed for electrolytic operations.

A powerful hydraulic press and a piece of apparatus for compressing gases by hydraulic power are available for experiments that have to be conducted under great pressure.

A small drop-testing machine has been constructed for investigating the mechanical properties of metals.

The Assaying Laboratory is equipped with a soft coal assay furnace, and with a number of muffle and crucible furnaces fired with coke; the large gas muffle furnace in the furnace room is also available for assaying purposes, and there is a small muffle furnace and a crucible furnace fired by gasoline.

Adjoining the assaying laboratory is the balance room and a small laboratory for chemical work.

In another room are a number of electrical pyrometers of both the Le Chatelier and Callendar type, and a micro-photographic outfit for recording the microscopic structure of metals and alloys. A polishing machine, worked by power has been installed to prepare the specimens for examination.

The courses of instruction in these laboratories are described on pages 260 to 264.

MINING AND ORE-DRESSING LABORATORIES.

The Department of Mining Engineering has one large laboratory in two storeys for ore-dressing and a number of rooms of moderate size equipped for use as special laboratories, offices, lecture room, dark room, machine shop, etc. The effective floor space is about 8,500 square feet, in addition to which the departmental store rooms, ore bins, etc., have an area of 1,000 feet.

The ore-dressing laboratory proper has about 5,000 feet floor space and is 25 feet high in the centre.

It is equipped with two classes of apparatus. First, a large number of pieces especially designed for individual work on a small scale. Many of these are for elementary investigations and demonstrations of a theoretical nature, others are working reproductions on a reduced scale of typical ore-dressing and milling machines. Second, a complete plant of standard apparatus for ore crushing, sampling milling, concentrating and for coal washing. The apparatus has been

chosen from the best designs in common use and whenever possible each important class of ore-dressing machinery is represented by two or more different types in order that comparisions may be made. Each machine is so arranged that it may be used, tested and cleaned up independently, but when expedient, a number of machines can be connected by automatic conveyors and thus complete working plants of various kinds can be improvised, each of sufficient capacity to test large lots of material under approximately working conditions.

The chief pieces of apparatus in the laboratory are rock-breakers of four kinds—Blake, Dodge, Gates, and Sturtevant, for coarse crushing; Gravity stamp mills of 600 and 950 lbs., respectively, and a small steam stamp for the fine crushing and amalgamating of gold ores; Huntington centrifugal roller mill, for crushing and amalgamating; high speed steel-tyred rolls for fine crushing; Sturtevant and Gate's grinders for preparing samples, and a number of ball mills, pebble mills and amalgamation pans for extremely fine grinding.

Following these there are Bridgman, Vezin, Jones and Brunton samplers, and a Callow belt screen and a series of trommels and hand and power shaking screens for sizing the crushed ores; two especially designed jigs of two and four compartments, with adjustable eccentric, cam and slide mechanisms, a pneumatic jig, a Taylor vibrating jig and several small hand and power jigs for coarse concentration; revolving, bumping and stationary tables; a stationary glass table; Frue vanner, Wifley table, Bartlett table, Bartlett canvas table, Bell's classifiers and feeders etc., for separating valuable minerals contained in the fine sands and slimes; plates, pans and barrels for amalgamating gold and silver ores; vats and other apparatus for cyaniding, chlorinating and other leaching processes; spitzkasten, spitzlutte, magnetic separators, an electro static separator, coal washers, dolly tubs, and various other special pieces of ore dressing apparatus.

An hydraulic lift and a number of belt and bucket and hydraulic jet elevators, feeders, samplers, etc., are provided for use in heavy continuous work. The power chiefly used is electricity, generated in the University power and light station, and utilized through a number of electric motors aggregating 60 H.P. conveniently placed near the machines to be operated, but steam is used for some pieces of apparatus and others may be driven by a pelton wheel. A belt driven air compressor of 7½ H.P. recently installed in the laboratory provides an ample supply of compressed air. The department is equipped with suitable apparatus for electrical measurements, and is thus able to make continuous and accurate determinations of the amount of power used by each machine.

In addition to the main laboratory there are excellent facilities for advanced and research work—including a thoroughly equipped analytic and assay laboratory and a photographic room. The department possesses an excellent Fuess petrographical microscope, a good set of weighing and measuring devices, and a number of pieces of special apparatus for advanced theoretical investigation.

The courses of instruction in these laboratories are described on pages 264 to 268.

OSCILLOGRAPH LABORATORY.

This laboratory contains a Blondel Triple oscillograph, with an oscillatory period of about $\frac{1}{6000}$ of a second.

The oscillograph is complete with photographic attachments. The room is supplied with alternating current from the A. C. Lab. and is so arranged that the wave of any machine may be studied. The room is also fitted for photographic work.

PETROGRAPHICAL LABORATORY.

The Petrographical Laboratory, containing the chief rock collections of the University, is situated in the Chemistry and Mining building, and is arranged for the use of students in the Mining Course as well as for those desirous of taking advanced work, such as Graduate students and those taking Honour Courses in Arts. It is provided with a number of petrographical microscopes by Seibert, Crouch, and Fuess, as well as with models, sets of thin sections, electromagnets, heavy solutions, etc., for petrographical work.

A collection of typical rocks has been especially prepared for the use of students and a complete equipment for cutting, grinding, and polishing rocks, has been installed, which runs by electric power and gives excellent facilities for the preparation of thin sections for microscopic use.

For advanced work and petrographical investigation Dr. Adams' extensive private collection of rocks and thin sections is available for purposes of study and comparison.

THE MACDONALD PHYSICAL LABORATORIES.

The equipment of the Macdonald Physical Laboratories comprises: (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by the students in practical work; (3) various types of all important instruments for exact measurement, to be used in connection with special work and research.

The basement contains the cellars, furnaces and janitor's apartments at the west end of the building. The machine room—containing a small gas engine and dynamo, which are fitted for testing, but can also be used for light and power, a motor-alternator and a motor-dynamo—is situated at the extreme western corner of the basement and so as to be as far removed as possible from the magnetic and electrical instruments. Here is also the switch board for controlling the various circuits for supplying direct or alternating current to different parts of the building, and a Liquid Air Plant, consisting of a Whitehead Torpedo Air-compressor, capable of giving 250 atmospheres, driven by an 11-Horse Power Electric Motor, and a Hampson Liquefier with a capacity of 1 litre per hour. The Accumulator Room contains a few large storage cells, charged by the motor dynamo, which are fitted with a suitable series-parallel arrangement and with rheostats for obtaining and controlling large currents up to 4,000 amperes for testing ammeters and low resistances, etc.

The Magnetic Laboratory contains magnetic instruments and variometers of different patterns, and also a duplicate of the B. A. Electro-dynamometer. The laboratory on the opposite side of the

basement contains a Lorenz apparatus for the absolute measurement of resistance, constructed under the supervision of Prof. Viriamu Jones.

There is a Constant Temperature Room, surrounded by double walls, which contains a Standard Rieffler Clock, and is fitted for comparator work.

The ground floor contains at the western corner a small machine shop, fitted with a milling machine and suitable lathes and tools, driven by electric motors, and such appliances as are required for the making and repairing of the instruments, for which the services of a mechanical assistant are retained. There is also a store room for glass, chemicals and cleaning materials, and extensive lockers and lavatories for the use of the students.

The Main Electrical Laboratory is a room 60 feet by 40, and is fitted with a number of brick piers, which come up through the floor, and rest on independent foundations, in addition to the usual slate shelves round the walls. This room contains a large number of electrometers, galvanometers, potentiometers and other testing instruments of various patterns, and adapted for different uses. It connects with a smaller room at the side, in which are kept the resistance boxes and standards, and also the capacity standards. Three small research laboratories adjoin the electrical laboratory.

The first floor contains the main Lecture Theatre, with seats for about 150 students. The lecture table is supported on separate piers, which are independent of the floor. Complete arrangements are provided for optical projections and illustrations. The Preparation Room in the rear contains many of the larger pieces of lecture apparatus, but the majority of the instruments, when not in use, are kept in suitable cases in the adjoining apparatus room. On the same floor there is the Heat Laboratory, devoted to advanced work in thermometry, pyrometry and calorimetry and also to such electrical work as involves the use of thermostats and the measurement of the effects of temperature. There are also two smaller rooms for professors and demonstrators.

The second floor is partly occupied by the upper half of the Lecture Theatre. There are also two lecture rooms for advanced courses and a small research laboratory, and a special Physical Library chiefly devoted to reference books and periodicals relating to Physics. A store room, lavatories and Professors' Room occupy the remainder of the flat.

The third floor contains the Elementary Laboratory, a room 60 feet square, devoted to elementary practical work in heat, sound, light, electricity and magnetism. There is a Demonstrators' room adjoining, and an optical annex devoted to experiments with lenses, galvanometers, etc., which require a darkened room. On the other side of the building there is a spectroscopic room, containing a six-inch Rowland grating, with mountings by Brashear, and other large spectrometers and polarimeters. Also a series of smaller optical rooms, including a photometric room, especially fitted for Arc photometry, and a dark room for photographic work. Communication between the different flats is facilitated by means of a hydraulic elevator. The walls are of pressed brick, and the floors of hard maple. There is a ventilating system, consisting of Tobin tubes and suitable exit flues, assisted by a fan in the roof.

A special elementary laboratory for the First Year Medical and Arts students has been fitted up in the attic.

LABORATORY OF PHYSIOLOGY.

The department of Physiology occupies a large portion of the top floor of the Laboratory Wing of the Medical Building. The space alloted to this department provides for a large students' laboratory, 45 by 58 feet, and smaller preparation rooms. The main laboratory is furnished with enough benches, apparatus, etc., to allow of 80 students working at one time.

THE PSYCHOLOGICAL LABORATORY.

The Psychological Laboratory occupies rooms in the Arts Building. In the main library are found the chief periodicals and works of reference on all branches of the sciences. Besides this, there has been added during the past year a considerable amount of apparatus so that the laboratory is now equipped for original research work in Experimental Psychology, Physiological Psychology and Applied Psychology. This same equipment also serves to train students in the methods of Experimental Psychology and furnishes material for demonstration in lectures.

STANDARDIZING LABORATORY.

The Standardizing Laboratory is equipped with a Weston Laboratory standard ammeter range 1.5—750 amperes with shunts; A Weston Laboratory Standard Voltmeter 0-3000 volts with multipliers; Weston Laboratory Standard A. C. Wattmeters 0-1, 0-5, 0-10, 0-50 amperes range and 0-75—150 volts range; A Weston Wheatstone Bridge; A Leeds and Northrup Conductivity Bridge; Epstein tester for measuring Magnetic Qualities of Material; about 28 secondary Weston standard instruments in ranges from 0-50 milliamperes-500 amperes, and from 0-150 millivolts-300 volts in both alternating and direct currents. The laboratory is provided with Weston Standard cells, potential regulators, current and potential transformers. The power furnished to the laboratory is from a battery 300 kilowatt hours' capacity and from a 15 kilowatt motor gen set for H.C. work.

STRENGTH OF MATERIALS LABORATORIES

These laboratories are equipped with apparatus for the determination of the physical properties of the materials of construction and for illustrating the fundamental laws of the strength of materials. The equipment includes:—

(*a*) A Riehlè testing machine of 60,000 lbs. capacity, a Wicksteed 100-ton and an Emery 50-ton machine for testing the tensile, compressive and transverse strength of the several materials of construction. To the Wicksteed has been added a specially designed arrangement, by which the transverse strength of girders and beams up to 26 ft. in length can be determined. Special holders have also been designed and made in the laboratory for investigating the tensile and shearing strength of timber, and for the testing of wire ropes, belts, etc.

(*b*) An Impact Machine, with a drop of 30 ft., and with gearing which will enable specimens to be rotated at any required speed, and the blows to be repeated at any required intervals. By means of a revolving drum, a continuous and accurate record of the deflections of the specimens under the blows can be obtained.

(*c*) A Torsion Machine with a specially designed angle-measurer, by which the amount of the torsion can be measured with extreme accuracy.

(*d*) An Accumulator, furnishing a pressure of 3,600 lbs. per square inch, which is transmitted to the several testing machines, and ensures a perfectly steady application of stress, an impossibility when any form of pump is substituted for an Accumulator. An automatic electric motor has been designed in the laboratory and constructed for the purpose of actuating the accmulator.

(*e*) A Blake and a Worthington Steam Pump, designed to work against a pressure of 3,600 lbs. per square inch. The Accumulator may be actuated by either of the pumps, and, if at any time it is necessary to do so, either of the pumps may be employed to actuate the testing machine direct. When in operation the work of the pump and the accumulator is automatic.

(*f*) Extensometers of the Bovey, Ewing, Unwin, Martens, Marshall and other types.

(*g*) Portable cathetometers, and also a large cathetometer specially designed and constructed for the determination of the extensions, compressions and deflections of the specimens under stress in the testing machines.

(*h*) Various electric motors for working the several machines.

(*i*) A drying oven for beams up to 26 ft. in length. The hot air in this oven is kept in circulation by means of a fan driven by an electric motor.

(*j*) Numerous gauges, amongst which may be specially noticed an Emery pressure gauge, graduated in single lbs. up to 2,500 lbs. per square inch. All of the testing machines are on the same pressure circuit, and are connected with the Emery gauge and also other standard gauges, including recording gauges. This arrangement provides a practically perfect means of checking the accuracy of the testing.

(*k*) Special apparatus and recording gauge for the testing of hose, etc.

(*l*) Dynamometers for measuring the strength of textile fabrics, the holding power of nails, etc.

(*m*) Apparatus for determining the elasticity of long wires.

(*n*) Apparatus for determining the hardness of materials of construction.

(*o*) Zeiss and other microscopes.

(*p*) Delicate chemical and other balances. A very important part of the equipment is the Oertling balance, capable of indicating with extreme accuracy weights of from .00001 lb. up to 125 lbs.

(*q*) Apparatus for the microscopic study of metals and for microscopic photography.

(*r*) Micrometers of all kinds.

(*s*) A transverse bending machine which is adapted for loads up to 3,000 lbs. and for beams of 10 ft. span and a testing machine for applying bending and torsion simultaneously.

(*t*) Small beam testing machines used to illustrate the laws of the bending of beams, both when the ends are free and when they are fixed.

(*u*) Two small tension machines, in which experiments are made on metals, the strains being within the elastic limit.

(*v*) Apparatus with experiments for long wires, adapted for experiments on wires 60 ft. in length.

(*w*) A lever machine for experiments on alternate twisting.

(*x*) A testing machine for breaking tests on wires.

(*y*) A powerful hydraulic press for compression tests on metals, cements, stone and similar materials.

(*z*) Moments of Inertia apparatus.

THERMODYNAMIC LABORATORIES.

The steam Laboratory is furnished with an experimental steam engine of 120 I. H.P., specially designed for investigating the behaviour of steam under various conditions; the cylinders are 6½ inches, 9 inches, 13 inches and 18 inches in diameter, and the stroke of all the pistons is 15 inches. The cylinders can be so connected as to allow of working as a simple, compound, triple, or quadruple expansion engine, either condensing or non-condensing, and with any desired rate of expansion. The jackets are so fitted as to permit of measuring independently the water condensed in the cover, barrel, or bottom jacket of each cylinder, and the engine can be worked with any desired initial pressure up to 200 lbs. per square inch. The measurements of heat are made by means of large tanks, which receive the cooling water and the condensed steam. There is an independent surface condenser and air pump. Two hydraulic absorption brakes and an alternative friction brake serve to measure the mechanical power developed.

This Laboratory also contains the following machinery:—

A Robb automatic cut-off engine, having a cylinder 10½ inches in diameter by 12 inches stroke. This engine is specially fitted up for the measurement of cylinder temperatures, and can be run at speeds up to 300 revolutions per minute.

An automatic high speed engine by Macintosh & Seymour, having a cylinder 12 inches in diameter by 12½ inches stroke. In connection with this engine there is an automatic recording apparatus for registering the load on the brake.

A Leonard horizontal engine, having a cylinder 8 inches diameter by 9 inches stroke, specially fitted for instructional work in valve setting and provided with an independent surface condenser.

A "Dake" steam engine of 4 H.P.

A two stage air compressor taking 40 H.P., and having cylinders 10 inches and 17 inches in diameter, by 15 inches stroke. The compressor delivers its air into reservoirs placed beneath the floor of the machine shop, and is provided with an intercooler whose capacity can be varied as desired.

A high speed horizontal engine having a cylinder 6 inches diameter by 9 inches stroke, and operated by compressed air.

A gas-fired preheater for the above engine.

A standard 9½ inch Westinghouse air brake pump, fitted for testing and for supplying compressed air for experimental and other purposes.

A non-rotative Blake steam pump, having steam and water cylinders, 4½ and 2¾ inches diameter and 4½ inches stroke.

The Gas Engine Laboratory is equipped with:—

A horizontal gas engine by the National Gas Engine Company, having a cylinder 12 inches diameter by 20 inches stroke, and developing 40 B.H.P.

A suction-type producer for the above, with the necessary scrubbers and gas cleaning apparatus.

A down draft producer designed for working with lignite and bituminous coal.

A standard 4 inch gas meter, gasometer, and exhauster.

An Atkinson "Cycle" gas engine of 6 B.H.P., working on city gas.

An Otto type gas engine (built in the workshops of the Department), having a cylinder 8½ inches diameter by 12 inches stroke, and giving 10 B.H.P., with city gas.

A two cylinder 4 cycle gasoline engine (built in the workshops of the department), and giving 8 B.H.P.

A 12 H.P. Compound steam engine and a 4 H.P. Blackston Petrol oil Engine.

The smaller apparatus belonging to the laboratories includes the necessary equipment of weighing machines, brakes, calorimeters, thermometers, gauges, pyrometers, fuel testers, indicators, planimeters, and a Moscrop recorder.

The boiler installation of the Engineering Building supplies steam for heating and power purposes, and is so arranged as to be available for experimental work in connection with the Thermodynamic Laboratory. It comprises boilers of five distinct types as follows:—

One Cornish boiler, for heating service, rated at 50 H.P.

One locomotive boiler, Belpaire type, 100 H.P.

One internally fired tubular boiler, 120 H.P.

Two Babcock-Wilcox water-tube boilers, each 60 H.P.

One Yarrow water-tube boiler, fitted in a closed stokehold, for working under forced draft, rated at 150 H.P.

These boilers are provided with the necessary tanks, weighing-machines and apparatus for carrying out evaporative tests.

ZOOLOGICAL LABORATORIES.

The Zoological Department occupies the whole of the uppermost floor of the east wing of McGill College and the larger portion of the floor immediately below.

It consists of:—

(*a*) A large laboratory affording accommodation for a class of 100 students.

(*b*) A smaller laboratory capable of seating about 18 students.

(*c*) Three smaller laboratories fitted up for purposes of research.

Dissecting trays, simple and compound microscopes, reasonable quantities of the ordinary reagents and of glass are provided by the department, but students provide themselves with razors for cutting sections.

The Department is provided with four large tanks and a number of smaller ones in order to maintain a supply of fresh specimens throughout the winter.

The subjects for practical work, are as far as possible, selected from species inhabiting the vicinity of Montreal.

The laboratories are well provided with thermostats, microtomes, apparatus for microphotographic work and other instruments required for advanced research. There is also a library attached to the department.

2. MUSEUMS.

ANATOMICAL MUSEUM.

DIRECTOR:—PROFESSOR F. J. SHEPHERD.

The disastrous fire of 1907 completely destroyed the Museum of Anatomy, but steps are being taken to replace the teaching material, and now the department is well supplied. Many specimens have been received from the Army and Navy Museum of Washington, D.C., and from graduates. Several institutions also have promised help.

A complete set of Steyer's casts has been imported from Germany and a large number of preparations from Tramond of Paris. A set of brain sections has been prepared by Prof. MacCarthy and a number of new frozen sections and dissections of special parts have been placed on exhibition.

MUSEUM OF HYGIENE.

DIRECTOR:—PROF. T. A. STARKEY.

The Museum has been established from the interest accruing through the endowment of the Chair of Hygiene by Lord Strathcona and Mount Royal in 1893.

With a view to exhibiting not only specimens of the best and most approved types of appliances in each particular branch of Public Health, but also examples of types which are to be avoided on hygienic principles, the material in the Museum has been re-arranged. In order to facilitate study and reference, the specimens have been classified upon a decimal system under the following sections:—

1. *Disinfection.*—Including disinfecting apparatus, disinfectants, and antiseptics.

2. *Lighting and Heating.*—This section includes types of all known methods of heating and ventilation.

3. *Water.*—Showing underground water and supplies drawn from it; methods of purification on large and small scales, including domestic filtration; exhibits of all the common modes of pollution of water supplies.

4. *Buildings.*—Effects of ground moisture on dwellings; building materials of all kinds; and measures to be taken against dampness and foul air.

5. *Soil.*—Various kinds of soils; relation between soil and dampness; permeability of soils to gas and water; composition of soils.

6. *Air.*—Including ventilation, climate and meteorology, with apparatus illustrative of each class.

7. *Drainage and Refuse Disposal.*—This section includes every description of sanitary appliance used in building, drainage and ulti-

mate disposal of refuse, both liquid and solid. The section also includes types of faulty methods.

8. *Foodstuffs and Clothing.*—Adulterations and modes of transmission of disease.—Materials and their value for clothing.

9. *Vital Statistics.*—Administration, etc.

10. *Bacteriology and Pathology relating to Public Health.*—Including specimens and slides of all the common micro-organisms, pathogenic and non-pathogenic; specimens of pathological conditions met with in meats, etc.

In addition to the regular Museum Exhibit there is a collection of over 1,000 lantern slides illustrative of phases of Hygiene. The slides have been so arranged as to be available for demonstrations as hand specimens. These slides as well as all the specimens in the Museum are card catalogued, and a projecting lantern is available for their demonstration.

The following are some of the principal exhibits:—Set of Knight's diagrams and models; working models and full sized specimens illustrating house-drainage, closets, etc., sewer air, movements of soil air; Doulton's models of drainage; damp-proof construction, absorption of moisture in building materials; ventilation appliances; combined heating and ventilation; automatic regulation of heating and ventilation; building materials; fire proofing, estimation of carbonic acid and moisture in the air; meteorological apparatus; water supply, water piping; water filtrations of public and domestic supplies; pollution of water supplies; ground water level; sewage and refuse disposal plants; sanitary fitting and plumbing; food supply; food adulteration; examination of milk supplies; disinfection; disinfectants.

A complete descriptive catalogue containing a large amount of condensed information with reference to the exhibits, has been published, and may be obtained at the office of the Medical Registrar.

PATHOLOGICAL MUSEUM.

Prof. J. G. Adami, Director.
Maude E. Abbott, B.A., M.D., Curator.
E. L. Judah, Preparator and Osteologist.

Since the organization of the Medical Faculty the Pathological Museum has been one of its most cherished objects. Some specimens still remain upon its shelves donated by the founders of the College (notably a unique case of Cor. Biatrium Triloculare, reported by Dr. Andrew Holmes in 1823), and for the last fifty years the rich pathological material furnished by the Montreal General Hospital has been collected here. Many specimens are also now yearly received from the Royal Victoria Hospital, and the Faculty is also indebted to many medical men throughout Canada and the United States for important contributions.

The fire of 1907 did severe damage to the Museum and its contents, but, fortunately, through the efforts of the Curator and Staff and the active assistance of a large body of students, much that is of great value was saved.

The singularly rich collection of disturbances of the heart and vascular system, including Dr. Osler's series of cases of acute endocarditis, is almost intact, as are also the collection of diseases of the

respiratory, urinary, nervous and male genital systems, and of the spleen and ductless glands.

To restore the loss thus sustained generous gifts have been received from several sources, of which first and foremost must be mentioned a collection of more than 200 specimens illustrating the different forms of injury and repair of the main bones by gun-shot wounds, all admirably mounted, from the Surgeon-General of the United States and the Army Medical Museum at Washington, also other comparative, osteological and morbid anatomical specimens from the same source—an equal amount and of almost equal value. The Museum is also indebted to Prof. J. Orth of Berlin, for some valuable duplicates of specimens from the great Virchow Museum in Berlin, as again to various museums connected with the great London hospitals, among which St. Bartholomew's deserves particular mention. With these and other gifts promised the Museum, this department should rapidly be restored, not merely for teaching purposes, but to its position as the most important pathological museum on this Continent.

THE PETER REDPATH MUSEUM,

CURATOR:—PROF. D. P. PENHALLOW, D.Sc.

The large and valuable collections in Botany, Zoology, Mineralogy and Geology are arranged in such a manner as to facilitate the work in these departments.

The general arrangement is as follows:

1. The Botanical Room on the ground floor contains the Herbarium, consisting of 50,000 specimens of Canadian and exotic plants and collections illustrating structural and economic botany.

2. On the first floor is a room over the entrance hall, in which are cases containing archæological and ethnological objects, including collections from the Queen Charlotte Islands, from Egypt, and from South Equatorial West Africa.

3. This room opens into the great Museum Hall, on each side of which are alcoves with upright and table cases containing the collections in Palæontology arranged primarily to illustrate the successive geological systems, and subordinately to this, in the order of zoological and botanical classification, so as to enable the student to see the general order of life in successive periods, and to trace any particular group through its geological history.

4. At the extreme end of the Hall are placed the collections of minerals and rocks, arranged in such manner as to facilitate their systematic study. In the centre of the Hall are economic collections and large casts and models.

5. In the upper storey or gallery of the great Hall are placed the zoological collections; the invertebrate animals in table cases in regular series, beginning with the lower forms; the vertebrate animals in upright cases, in similar order. THE PHILLIP CARPENTER COLLECTION of shells is especially noteworthy for its arrangement and completeness.

Papers or memoirs relating to certain type specimens in the collections can be obtained from the Assistant Curator. Students have access to this Museum, in connection with their attendance on

the classes in Arts in the subjects above named, and also by tickets which can be obtained on application. Classes of pupils from schools can be admitted on certain days under regulations which may be learned from the Professors or from the Registrar of the University.

3. WORKSHOPS.

The Workshops, erected on the Thomas Workman Endowment, have a total floor area of more than 20,000 square feet.

Equipment.—The Carpenter Shop and the Pattern Shop contain thirty-eight carpenters' and pattern-makers' benches complete with the necessary sets of hand tools, twenty-two wood-turning lathes with their turning tools, a large pattern-makers' lathe for faceplate work, one circular saw bench, a jig saw, a band saw, two wood trimmers, a surface planer, a thickness planer, a mortising machine, a saw-sharpener, and one universal wood-working machine.

The Smith Shop is provided with sixteen Sturtevant forges which are power-driven and are connected with an exhaust fan. There is a power hammer, and the necessary equipment of anvils, swage blocks, sets, flatteners and other tools. Provision is made for instruction in soldering and brazing.

The Foundry has benches, tools and apparatus for bench and floor moulding and core-making, and is able to accommodate twenty students. A gas-fired brass melting furnace, a cupola for melting iron, and the necessary core-ovens and core-benches give facilities for undertaking iron foundry work in green and dry sand, and for brass moulding. The shop is served by a hand travelling crane of one ton capacity.

The Machine Shop has twelve 18-inch engine lathes, one 18-in. turret lathe fitted for stud and screw making, one 27-inch engine lathe, one 72-inch surfacing lathe, one brass-finishing lathe, one 36-inch vertical drilling machine with compound table, one universal milling machine with vertical milling attachment and dividing headstock, one planer capable of taking work up to 24″ x 24″ x 5 ft., one 9-inch slotting machine, one 16-inch shaper, one universal grinding machine, centering machine, a cutter grinder, a tool grinder, and a buffing and emery grinding machine. There are vise benches for eighteen students, with the necessary hand-tools, and a marking-off table. The tool-room contains a full equipment of drills, reamers, milling cutters, and accessories, gauges, callipers, and other measuring instruments.

All the machinery in the workshops is driven electrically by motors taking power from the generating station in the Macdonald Building.

THE UNIVERSITY LIBRARY.

C. H. GOULD, B.A., Librarian.

The University Library is under the general management of a Committee of Corporation, consisting of the Principal, Chairman; the Librarian, Secretary; two members of the Board of Governors; one Representative Fellow, appointed by Corporation; two representatives of the Faculty of Arts, elected by the Faculty; one representative of each of the Faculties of Applied Science, Law and Medicine, elected by their respective Faculties; and four other members appointed by Corporation.

The several libraries of the University now contain rather more that 126,000 volumes, over 20,000 pamphlets, and considerable collections of maps and of photographs.

In addition to providing for the symmetrical growth of the Library, the Committee has been enabled, through generous gifts, to acquire a number of the rarer and more costly monographs and serials which are indispensable for research, there being now on the shelves fully 300 complete fyles of periodicals and publications of various literary and scientific societies. Many of these have been added through the liberality of Sir William C. Macdonald.

Among the special collections, exclusive of departmental libraries, mention should be made of the *Redpath Historical Collection*, formed by the late Mr. Peter Redpath some years before his death, after which it was steadily augmented during the remainder of her life, by his widow. It is now of great value, and affords excellent opportunities for the study of English History. The most striking feature of the collection—a series of political and religious tracts—was greatly enriched by the late Mrs. Redpath, and now comprises about 10,000 brochures, dating from 1600 A.D. to the end of the nineteenth century.

Abundant materials, bearing upon the History of Canada have been gathered together. Of these the nucleus is formed by the entire library of the late Mr. Frederick Griffin, whose choice books were, some years ago, bequeathed to the University. This branch of the library is growing, and includes, besides important manuscripts, an interesting collection of Canadian portraits and autographs.

The Medical Library, directly controlled by the Faculty of Medicine, is the largest of the departmental libraries, and is one of the most complete collections of its kind in the Dominion.

Current periodicals, with Transactions and other Society publications to the number of about 375 in the aggregate, are regularly received by the Library.

During the autumn of 1900, members of the family of the late Mr. Hugh McLennan generously enabled the Library Committee to establish a system of travelling libraries, for the maintenance and operation of which they have since provided. The libraries are sent on application, and on payment of a nominal fee of $3.00, to any point in Canada. Regulations and full particulars may be obtained from the Librarian of the University. For particulars of the Summer School for Training Librarians see page 16.

Although the library is maintained primarily for members of the University, the Corporation has provided for the admission, upon certain conditions, of such persons as may be approved by the Library Committee. It is the desire of the Committee to make the library as useful to the entire community as is consistent with the safety of the books and the general interests of the University.

EXTRACTS FROM THE LIBRARY REGULATIONS.

1. The Library is closed on Sundays, and on nine other days during the year. These days, and any variation from the regular hours given below, are noted specifically in the Calendar under the day in question.

The hours of opening are:—

(a) During the Session, from 9 A.M. till 6.30 P.M. and from 7.30 till 10.30 P.M. On Saturdays, from 9 A.M till 5 P.M.

(b) During vacation from 9 A.M. till 5 P.M. On Saturdays, from 9 A.M. till 1 P.M.

2. Students in the Faculties of Arts, Law, and Applied Science are entitled to read in the Library, and may borrow books (subject to the regulations) to the number of three volumes at one time.

3. Students in the Faculty of Medicine, who have paid the Library fee to the Bursar, may read in the Library, and on depositing the sum of $5 with the Bursar, may borrow books on the same conditions as students in other Faculties. They are required to present their Matriculation Tickets to the Bursar and to the Librarian.

4. Graduates in any of the Faculties, on making a deposit of $5, are entitled to the use of the Library, subject to the same rules and conditions as students in Arts, Law, or Applied Science.

5. Books may be taken from the Library only after they have been charged at the Delivery Desk: borrowers who cannot attend personally must sign and date an order, giving the titles of the books desired.

6. Books shelved in the Reading-rooms or Seminary-rooms, must not be taken from the rooms to which they have been assigned; and after they have been used, they must be returned promptly by readers to their proper places upon the shelves.

7. Before leaving the Library, readers must return the books they have obtained to the attendant at the Delivery Desk.

8. All persons using books remain responsible for them so long as the books are charged to them, and borrowers returning books must see that their receipt is properly cancelled.

9. Writing or making any mark upon any book belonging to the Library is unconditionally forbidden. Any person

found guilty of wilfully damaging any book in any way shall be excluded from the Library, and shall be debarred from the use thereof for such time as the Library Committee may determine.

10. Damage to or loss of books, maps, or plates, and injury of Library fixtures, must be made good to the satisfaction of the Librarian and of the Library Committee.

Damage, loss or injury when the responsibility cannot be traced will be made good out of the caution money deposited by the students with the Bursar.

11. Should any borrower fail to return a book upon the date when its return is due, he may be notified by postal card, and be requested to return the book. If the loan is not renewed, or the book returned, after a further delay of at most three days, it may be sent for by special messenger, at the borrower's expense.

12. Before the close of the session, students in their final year must return uninjured, or replace to the satisfaction of the Librarian, all books which they have borrowed.

13. Silence must be strictly observed in the Library.

14. Infringement of any of the rules of the Library will subject the offender to a suspension of his privileges, or to such other penalty as the nature of the case may require.

McGILL COLLEGE BOOK CLUB.

Established A.D. 1869.

This Club is in the 41st year of its existence, and has for its two-fold object to procure an early supply of new books (novels excluded) for its members, and the increase of the Library. By this means an addition has already been made to the Library of not less than 4,000 volumes in special and general literature.

Membership in the Club is open to all, at an annual subscription of ten dollars.

Apart from the advantages to be directly derived from membership, there is the special privilege accorded to mem-

bers of using the College Library on the same conditions as graduates, without being required, however, to make a deposit when books are borrowed.

The members of the Executive Committee are as follows:— Dr. Alex. Johnson; F. P. Walton, B.A., LL.B., LL.D.; Mr. G. B. Cramp, K.C; Dr. Andrew Macphail; Wm. Gardner, M.D.; F. J. Shepherd, M.D., and Mr. G. A. Farmer, to any of whom application for membership may be addressed.

The Club Depository is at The Foster Brown Co., Ltd., 432 St. Catherine St. West.

THE UNIVERSITY BOOK CLUB.

This Club was formed in 1905, and provides its members with the most recent books in English and French. Fiction is included, and German books may be obtained, if desired.

Membership is open to all, the yearly subscription being $5.00, which entitles subscribers to the use of two volumes at a time. The books are kept on special shelves at the University Library. The Club has already over 1,200 volumes at the disposal of its members.

The Executive Committee is constituted as follows:—

Rev. Dr. Welsh, Chairman; Miss Mary E. Hickson, Secy; Miss Emma Skelton, Treasurer; Ridler T. Davies, B.A.; Warwick Chipman, B.A., B.C.L.; Professor J. A. Dale; C. H. Gould, B.A.

Application for membership may be made to Miss Mary E. Hickson, 272 Mountain St., Miss Emma Skelton, 183 Mansfield St., or at the University Library.

THE GRADUATE SCHOOL.

Graduate instruction was for many years offered in the various departments of McGill University without definite organization. The increased demand for such work led the Corporation in 1906 to formally organize and extend the higher teaching work of the University. A Graduate School was, therefore, established, and in it are enrolled all the graduate students in the University who are following advanced courses of study in subjects which in the undergraduate work fall within the scope of the Faculties of Arts and of Applied Science.

The Faculty of the Graduate School consists of the professors of the Faculties of Arts and of Applied Science, but the initiative and administration of the School is placed in the hands of a Committee selected mainly from these Faculties and known as the Committee on Graduate Studies. The Chairman of this Committee is the official head of the Graduate School. The advanced courses of study offered in the Graduate School lead to the degrees of Master of Arts, Master of Science, and Doctor of Philosophy.

Instruction for students of the Graduate School is provided in the following departments of study which at present rank as "Subjects":—

Philosophy, including Psychology.
History.
Economics and Political Science
Greek Language and Literature (including Grecian History).
Latin Language and Literature (including Roman History).
French Language and Literature
German Language and Literature.
English Language and Literature.
Semitic Studies.
Archæology.
Comparative Philology.
Education.
Mathematics.
physics.
Chemistry.
Botany.
Zoology.
Geology aud Mineralogy.
Thermodynamics and Theory of Heat Engines
Theory of Elasticity, Strength of Materials and Theory of Structures.
Hydrodynamics and Hydraulics.
Applied Electricity.
Theory of Machines and Machine Design.
Metallurgy.
Mining.

The requirements for the several Degrees in Course are as follows:—

Degree of Master of Arts.

1. Candidates must hold the Degree of B.A. or B.Sc. (in Arts) from McGill University, or its equivalent.

2. Candidates must have taken

(*a*) One year of resident graduate study at McGill University; or

(*b*) Two or more years of private work; the amount of such work required may be stated to be the equivalent of one year of academic study.

3. One, two or three subjects may be taken.

4. One of these subjects shall be designated as the Major Subject and special attention shall be devoted to it. It must be a subject which the student has already studied in his undergraduate course, and the work required in it will represent an attainment in knowledge far in advance of that required for the B.A. Degree. The Minor Subject, or Subjects, may be selected from those of the undergraduate course of the Third or Fourth Year, which have not already been taken by the candidate. Not more than one-third of the candidate's time for the year shall be devoted to these subjects. The student shall pass an examination in each of the subjects of his course.

5. The student shall also present a thesis on some topic connected with his Major Subject. The title of his thesis must have been previously submitted to the Committee on Graduate Studies and the Head of the Department concerned, for their approval. The thesis must show evidence of distinct ability in dealing with the subject selected, and must also display good literary style.

6. Graduates possessing a Bachelor's Degree, who act as Demonstrators or Tutors in the University for the entire session may proceed to the Degree of M.A., and, in so doing, may at the discretion of the Department with which they are connected, and the Committee on Graduate Studies, omit a portion of the course of study. They shall, however, be called

upon to pass an examination on the course of study which they have followed, and shall in all cases submit the thesis prescribed for that Degree. If, however, they desire this year's work to count as one of the three years of study required for the Ph.D. Degree, they must make their course of study conform to the Ph.D. requirements.

N.B.—The first year's course of study for the Ph.D. Degree will cover the requirements of the M.A. course, but, if such a course of study be followed, a thesis must be submitted and approved before the Degree of M.A. is conferred. If, however, the student continues his course of study and takes the Degree of Ph.D., the Degree of M.A. will be conferred with the Degree of Ph.D., in which case no special thesis will be required for the former.

Degree of Master of Science.

1. Candidates must hold the Degree of B.A. or B.Sc from McGill University, or its equivalent.

2. Candidates must have taken

(*a*) One year of resident graduate study at McGill University; or

(*b*) Two or more years of private work; the amount of such work required may be stated to be the equivalent of one year of academic study.

3. The course of study followed by the candidate shall be of an advanced character, being the equivalent of that required for the degree of M.A., and shall lie in the domain of pure or applied science. It shall be selected from *one* of the last thirteen subjects in the list given above. Geodesy and Ore Dressing also constitute subjects in the case of this Degree. This course of study must have been previously submitted to the Head of the Department and to the Committee on Graduate Studies and have received their approval.

4. The candidate shall also present a thesis on some subject connected with his course of study. The title of this thesis must have been previously submitted to the Head of the Department and to the Committee on Graduate Studies and have received their approval. This thesis must show

evidence of distinct ability in dealing with the subject selected and must also display good literary style. It may deal with some very special topic, but the course of study followed by the student must cover a much wider field.

5. Graduates possessing a Bachelor's Degree, who act as Demonstrators or Tutors in the University for at least one entire session, may proceed to the Degree of M.Sc., and, in so doing, may, at the discretion of the Committee on Graduate Studies, omit a portion of the course of study usually required. They shall, however, be called upon to pass an examination on the course of study which they have followed, and shall in all cases submit the thesis prescribed for the Degree.

Degree of Doctor of Philosophy.

1. The candidate for the Degree of Doctor of Philosophy must hold the Degree of B.A. or B.Sc. from McGill University, or its equivalent.

2. He must have followed a course of at least three years' resident graduate study.

3. He must select one Major Subject and one Minor Subject. The Minor Subject selected must be related to his chief line of work. This Minor Subject shall have devoted to it about one-quarter of the instruction given during the entire course.

4. The candidate must satisfy the Committee that he has a reading knowledge of both French and German before he will be permitted to enter upon the course of the second year.

5. The examination on the Major Subject shall cover not merely the formal courses of instruction which have been taken, but the candidate must show that he possesses a good general knowledge of the whole science or branch of learning which he has selected as his Major Subject. A similar general, though less detailed, knowledge shall be required in the case of the Minor Subject.

6. The candidate must also prepare a thesis which must display original scholarship or show marked ability to conduct research. If the thesis be accepted, two hundred printed

copies of it must be deposited with the University Librarian before the candidate will receive his diploma.

The University has decided to exact a very high standard in the case of this Degree and, at least three years of study are therefore demanded.

To meet immediate needs, the University has decided to offer the complete three years' course leading to the Degree of Doctor of Philosophy in the following subjects taken as Majors.

Philosophy
Physics.
Chemistry.
Zoology.
Theory of Elasticity, Strength of Materials and Theory of Structures.
Hydrodynamics and Hydraulics.
Semitic Studies.

Students desiring to proceed to the Degree of Doctor of Philosophy in subjects other than those mentioned above may communicate with the Chairman of the Committee on Graduate Studies (Dr. Adams) at the Engineering Building, to whom also application should be made by all students desiring to follow courses of study in the Graduate School.

Owing to the fact that in future all theses submitted by successful candidates for higher degrees will be bound and placed in the Redpath Library, candidates for such degrees are advised that the Committee on Graduate Studies will henceforth require all these to be prepared in a uniform manner and in accordance with the following specifications:—

1st.—The paper is to be of uniform size 8¼ x 10 inches, and of substantial quality.

2nd.—The left-hand margin is to have a uniform width of 1½ inches.

3rd.—All Theses should be type-written if possible.

4th.—No binding is to be employed, but the loose sheets will be placed in a manilla envelope in the order of their pagination.

Paper of standard size and quality may be obtained of the Foster Brown Co., Ltd., 432 St. Catherine St. West, Montreal.

All theses for 1910-11 *must be in the hands of the chairman of the Committee on Graduate Studies on or before April* 15*th,* 1911. *No thesis received after this date will be accepted.*

ROYAL VICTORIA COLLEGE.

The institution of the Royal Victoria College, in September, 1899, was a direct continuation of the work begun in 1883, during the Principalship of the late Sir William Dawson, when Lord Strathcona and Mount Royal placed a sum at the disposal of the University of McGill, for the endownment of a College and classes for women. For many years previously it had been hoped by those interested in the education of women in Montreal that the University would extend its benefits to women, but the means necessary for carrying out such an aim had not been available. The classes were organized in 1884 as a special course in the Faculty of Arts, held at McGill College, separate in the main from those for men, but under identical conditions. In some of the work of the Third and Fourth Years, and in the Honour Courses, the classes were held jointly.

The ultimate aim of Lord Strathcona had been the foundation of a place of residence, and, with this object, he announced his intention of building and endowing the Royal Victoria College. By the opening of this Institution the opportunity of residence and college life is given to women-students of McGill University, working in accordance with the system previously organized in the special course in Arts, but under greatly improved conditions. A share in the advantages of college life is offered also to the non-resident women-students of the University, who are henceforth also students of the Royal Victoria College. Additional elements have been added in the organization of a Musical Department, now superseded by the McGill Conservatorium of Music, and in the institution of Resident Women Tutors. These additions are in accordance with the general aim of the College; viz., the higher education of women, and mainly to qualify them to take Degrees in Arts (including Pure Science), and to provide

them with instruction in those branches of a liberal education necessary thereto and in such other subjects as may from time to time be determined.

The College being a constituent College of McGill University, its students, whether graduate students, undergraduate, conditioned students, or partial students, follow the courses in Arts and Pure Science offered by the University (see pages 96 to 109.

Lectures are given by the Professors and Lecturers of the University, either in the College or in the University buildings, and students attend the University laboratories for practical instruction. In addition to the instruction given in lectures and laboratory practice, the students of the Royal Victoria College are assisted in their studies by the Resident Tutors.

THE COLLEGE BUILDING.

The College is situated on Sherbrooke Street at the head of Union Avenue, in close proximity to the University buildings and to the slopes of Mount Royal. The building is fire-proof, and much thought and artistic care have been given to the furnishing and decoration.

On the ground floor are the offices of the Administration, including the rooms of the Warden and Secretary, the Professors' common room, lecture rooms, students' common room and a spacious dining hall. On the first floor are other lecture rooms, the library, reading-room, a handsome assembly hall, and a few rooms for resident students. The second and third floors are devoted to the rooms of the resident students and tutors. These are of varying size and plan. Each student has a separate study bedroom. The entire use of a sitting-room can be obtained, and arrangements may be made for a sitting-room to be shared by the occupants of the two or three bedrooms immediately adjoining. The rooms are completely furnished, and no article of furniture need be brought by the students.

In addition to the lawn at the back of the College, the students are entitled to use, subject to regulations, the grounds of McGill University, with its tennis-courts, skating-rink, etc.

A nucleus of a College Library has been formed with a set of books, comprising the chief stated books and others referred to in connection with the University curricula, the modern language course being especially well represented. There are also works of general literature. The Library is a reading-room, and the books are not taken away. The students have access also to the University Lending Library.

Resident students of Music have the use of pianos in two practising-rooms and, at certain hours, in other parts of the building.

A large Gymnasium is provided, fully equipped in accordance with modern requirements. In connection with the Gymnasium there are bath-rooms and dressing-rooms.

The health of the resident students is under the charge of a competent physician practising in Montreal, who may be consulted free of charge. Every student applying for admission to Residence is required to forward a medical certificate on a form provided by the College.

Students of the Royal Victoria College, as students of McGill University, are entitled to the use of the University Library, containing about 126,000 volumes, and the Peter Redpath Museum, containing large collections in Mineralogy, Palæontology, Zoology, Botany, Archæology, and Ethnology, and to work in the physical, chemical, zoological, botanical and other laboratories. (For particulars of laboratories, etc, see pp. 346 to 360.)

BOARD AND RESIDENCE.

Residence in the College building is open to graduate students, undergraduates, conditioned students, or partial students, but the last are not received in residence unless they take courses of study approved by the Faculty of the College. The charge for board and residence, in addition to the sessional fees for tuition (see pp. 72 to 74), is $351. An addi-

tional charge, varying from $25 to $60, is made for the use of a private sitting-room shared by two students, or for the sole use of a private sitting-room. These charges cover the University Session, 28th September—13th May, and the Summer Classes, extending to June 12th, and other periods, if necessary, for examinations. Students remaining in residence during the Christmas Vacation will be required to pay $1.00 a day for board and residence during that period. A deduction of $50 is made in the case of students who go out of residence at the end of the University Session.

Applications for admission or further particulars should be addressed to the Warden, Royal Victoria College, Montreal.

PHYSICAL EDUCATION

The Department is in charge of the Medical Director of Physical Education of McGill, and a graduate of a Physical Education College.

The physical education offered to undergraduate students includes educational, remedial and recreative gymnastics.

The educational gymnastics are based on anatomical and physiological laws; the exercises aim at producing the highest degree of health in each individual, and thus contribute to mental as well as to physical efficiency. The course of exercises, which is progressive throughout each session, encourages the harmonious development of the nervous and muscular system, and provides a remedy for incorrect habits of sitting, standing and walking. Special attention is given to the development of the chest, since a good lung capacity is the foundation of a really healthy constitution. All students are examined by the Medical and Physical Directors before taking part in any of the exercises organized by the Department, and a remedial gymnastic course is prescribed for undergraduate students with spinal curvature, or who are physically unfit for ordinary class work.

Recreative gymnastics in the shape of basket ball, tennis, ice hockey, fancy skating and athletic sports are also organized

by the Royal Victoria College Athletic Association, under the supervision of the Department.

Undergraduates of the First and Second Years are required to attend two educational gymnastic classes per week and undergraduates of the Third Year one per week.* Undergraduates of the Fourth Year wishing to enter educational gymnastic classes are expected to attend regularly. Undergraduate students entering the Royal Victoria College in their Third or Fourth Year are required to attend educational gymnastic classes twice a week for one session, unless they are excused for reasons deemed sufficient by the Department.

Partial students in residence are also required to attend educational gymnastic classes. Educational and recreative gymnastics are open to all Partial students on payment of special fees.

The Physical Director arranges all regulations regarding necessary attendance and the substituting of recreative gymnastics for educational.

EXHIBITIONS AND SCHOLARSHIPS.

For a statement of the Exhibitions and Scholarships open to women students of the University, see pp. 49 to 60.

In addition to these, and further to encourage residence within the College walls of students who might otherwise arrange to board in the city, the Warden and Staff are empowered to make nominations in any of the four College years to not more than three additional Exhibitions of the value of $100 each.

MUSIC.

Instruction in Music is offered at the McGill Conservatorium of Music,—Director, Dr. H. C. Perrin; Miss Clara Lichtenstein, Vice-Director. The subjects of instruction carried on in the Conservatorium are:—Pianoforte, Singing, Organ, Violin, Violoncello, and all Orchestral Instruments;

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*In all cases of absence the student is required to report to the Physical Instructor.

Harmony, Counterpoint, Canon and Fugue, Composition, Form, Analysis, History of Music, Theory, Elements of Music, Orchestral Class, Ensemble Playing, Piano-Accompaniment, Part Singing, Choir Singing, Sight Singing, Operatic Class, English, French, German, Italian, Elocution. Students may prepare for the Degree examinations in Music of the University, or for other examinations recommended by the Conservatorium.

For information regarding courses in music leading to degrees, see page 179, and also the separate syllabus issued by the Conservatorium of Music.

For Time Table of lectures in Arts, see first part of Calendar.

MACDONALD COLLEGE.

GENERAL STATEMENT.

Macdonald College, which is incorporated with McGill University, was founded, erected, equipped and endowed by Sir William C. Macdonald for the following among other purposes:—

1. The advancement of education; the carrying on of research work and investigation and the dissemination of knowledge; all with particular regard to the interests and needs of the population in rural districts.

2. To provide suitable and effective training for teachers, and especially for those whose work will directly affect the education in schools in rural districts.

Recognizing the importance of adequate education, adapted to the needs of the rural communities, which are the great producing classes of the country, this College will labor in sympathy with all other educational effort for the development and increase of intelligence, power, ability and skill, and willingness to co-operate for the common good in each locality as well as in the nation at large. Therein lies the reason for arranging the work of the College into a School of Agriculture, a School for Teachers, and a School of Household Science. Increase of productiveness, with improvement of products in the field and in the industries of the farm and the town, greater comfort and enjoyment in the home, a better taught school for the children, and a nobler sense of the duties and responsibilities of life—these are some of the advantages which Macdonald College hopes to assist in providing for Canada.

The College occupies a beautiful site, overlooking the Ottawa River at Ste. Anne de Bellevue, Que., twenty miles west of Montreal. The main lines of the Grand Trunk and the

Canadian Pacific railways pass through the property, and the stations of both railways are within its boundaries.

The College property comprises 561 acres, and has been arranged into four main areas, viz.: (1) the Campus, with lawn, school garden, and recreation fields for boys and girls; (2) Experimental Grounds, with plots for illustration and research in grains, grasses, and flowers; (3) the Small Cultures Farm for horticulture and poultry keeping, and (4) the Live Stock and Grain Farm.

THE GENERAL ORGANIZATION.

The College is divided into three schools, and a student is enrolled in that one in which the major portion of his work is taken:

(1) *The School of Agriculture,* which aims to provide a theoretical and practical training in the several branches of Agriculture.

(2) *The School for Teachers,* which offers a comprehensive and thoroughly practical training in the art and science of teaching.

(3) *The School of Household Science,* which gives young women such training as will make for the improvement and greater enjoyment of home life.

THE GOVERNMENT.

Macdonald College is a College of McGill University.

Under the statutes the Governors of McGill University have constituted the Principal of Macdonald College, together with such other members of the staff of Macdonald College and such other persons as the Governors may see fit to appoint from their own number or otherwise, as the Macdonald College Committee. It is the function of this Committee to direct the educational policy and draw up a suitable curriculum, and to make and enforce regulations concerning the courses of study and teaching, the College examinations, the admission of students, the amount and mode of payment of fees, and the discipline and internal government—the whole

subject to report to the Governors and at least once a year to Corporation.

All courses given in Macdonald College leading to a degree in the University, the examinations held in connection therewith, and fees payable in respect of such courses and examinations, are subject to the approval and under the control of the Corporation of McGill University.

Courses for the training of teachers for the Protestant Schools of the Province of Quebec, together with the examinations held in connection therewith, are under the direction of the Teachers' Training Committee, constituted as set forth under the "School for Teachers," on page 411, such training and examinations being subject at all times to the regulations of the Protestant Committee of the Council of Public Instruction.

OFFICERS OF INSTRUCTION.*

School of Agriculture.

F. C. HARRISON, B.S.A., D.Sc., Professor of Bacteriology. (Acting Principal).

WILLIAM LOCHHEAD, B.A., M.Sc., Professor of Biology.

CARLETON J. LYNDE, Ph.D., Professor of Physics.

LEONARD S. KLINCK, M.S.A., Professor of Cereal Husbandry.

H. S. ARKELL, B.S.A., M.A., Professor of Animal Husbandry.

JOHN BRITTAIN, D.Sc., Professor of Nature Study.

W. SAXBY BLAIR, Professor of Horticulture.

J. F. SNELL, Ph.D., Professor of Chemistry.

FRED. C. ELFORD, Manager and Instructor in Poultry Department.

J. M. SWAINE, M.S.A., Lecturer in Entomology and Zoology.

DOUGLAS MACFARLANE, Ph.D., Lecturer in English and History.

JOHN FIXTER, Farm Superintendent and Instructor in Farm Machinery.

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* Many of the Officers of Instruction take Classes in all three schools; their names appear under the one in which the major work of their Department is done.

GEORGE E. EMBERLEY, Instructor in Manual Training.
H. BARTON, B.S.A., Lecturer in Animal Husbandry.
G. H. CUTLER, B.S.A., Assistant in Cereal Husbandry.
JOHN F. MONROE, B.S.A., Lecturer in Horticulture.
J. VANDERLECK, Ch.E., Assistant in Bacteriology.
H. DASEN, Assistant in Bacteriology.
H. S. HAMMOND, B.S.A., F.C.S., Lecturer in Chemistry.
FREDERICK W. BATES, B.A., Assistant in Physics.
DOUGLAS WEIR, B.S.A., Assistant in Biology.
MISS JANET MACNAUGHTON, N.D.D. (Great Britain), Instructor in Home Dairying.
CHARLES B. POWTER, Instructor in Physical Culture.

School for Teachers.

S. B. SINCLAIR, M.A., Ph.D., Head of the School for Teachers and Professor of the History and Principles of Education.
ABNER W. KNEELAND, M.A., B.C.L., Professor of English.
MME. SOPHIE CORNU, Professor of French.
H. F. ARMSTRONG, Associate Professor of Drawing.
MISS LILLIAN B. ROBINS, B.A., Lecturer in Mathematics and in Classics.
MISS MARY I. PEEBLES, Head Mistress in Practice School.
WILLIAM H. SMITH, Instructor in Vocal Music.
MISS MARJORIE TORRANCE, Instructor in Physical Culture.
MISS MARGUERITA MACNAUGHTON, B.A., Teacher in Practice School.
MISS JANET T. GREIG, Teacher in Practice School.
MISS HORTENSE E. LAWRENCE, Teacher in Practice School.

School of Household Science.

MISS KATHERINE A. FISHER, Acting Head of the School of Household Science and Assistant Professor of Household Science.
MRS. T. T. RUTTER, Instructor in Household Science.
————————, Instructor in Household Science.
————————, Instructor in Laundry and Household Practice.

_____, Instructor in Sewing and Dressmaking.
MISS BESSIE J. RUSSELL, Assistant in Household Science.

In the Residences.

MRS. JENNIE MULDREW, Superintendent of Women's Residence.
MISS MABEL MORTIMER, Housekeeper.
MISS NEALINA L. MACMILLAN, Superintendent of Men's Residence.
MISS JESSIE M. MACNAUGHTON, Assistant Housekeeper.
FRED. W. HARVEY, B.A., M.D., Consulting Physician.
JOHN J. WALKER, B.A., M.D., Physician.

Bursar.

T. FRED. WARD.

Librarian.

MRS. FRANK J. James.

ENTRANCE REQUIREMENTS.

School of Agriculture.

All candidates for admission:

1. Must have entered upon their eighteenth year;

2. Must produce satisfactory evidence as to moral character; also medical certificate of health, including successful vaccination; and

3. Must produce evidence of having worked for a season (seed-time to harvest) on a farm, affording a practical knowledge of ordinary farm operations.

All candidates for the One and Two-Year Courses will be required to read and write the English language acceptably, to be proficient in the use of elementary mathematics, and to be acquainted with history and geography, especially of Canada.

A student admitted in 1907, 1908 or 1909 may proceed with the work of the Third and Fourth years, towards a Degree, provided he has taken the Two-Year Diploma Course, has obtained 60% of the marks in English and 50% in general proficiency, and has the permission of the Faculty.

A student who presents a matriculation certificate on entering the First Year may proceed with the work of the Third and Fourth years, provided he has taken the Two-Year Diploma Course to the satisfaction of the Faculty.

A student who applies for admission to the courses leading to a Degree, beginning with the session 1910-11, or subsequently, will be required:—

1. To pass, *before entrance,* an examination in English Composition and Spelling, English Grammar, History and Geography, and Arithmetic, as prescribed for admission to any of the Faculties of the University (see B.S.A. Entrance Examination Requirements, page 26); and *before being allowed to proceed with the work of the Third Year,* to have obtained 60 per cent. of the marks in English, and 50 per cent. in general proficiency in the examination of the work of the Two-Year Course, and the permission of the Faculty; *Or*

2. (a) to have passed an examination in the following subjects, up to the requirements for entrance to the other Faculties of the University:—(1) English Literature, (2) Latin, French or German, (3) Algebra, Part I, (4) Geometry, Part I, (5) any two of the following: Botany, Chemistry, Physics, Zoology; *Or*

(b) to produce certificates of having passed examinations equivalent to the matriculation examination of the University in any Faculty. (For a list of such certificates see page 19); to have passed an examination in the work of the Two-Year Course; and to have obtained the permission of the Faculty, the whole subject to the regulations of the Corporation of McGill University.

Students who wish to take the matriculation examination in connection with the B.S.A. course must conform to the regulations of the University regarding fees, etc. For information apply to The Registrar, McGill University, Montreal.

School for Teachers.

Teachers to be trained for the schools under the control of the Protestant Committee of the Council of Public Instruction

for the Province of Quebec will be admitted under conditions prescribed by that body, particulars concerning which are given in detail in the announcement of Macdonald College.

Other teachers, and others who wish to become teachers elsewhere, will be admitted for courses under regulations of the Macdonald College Committee.

Such candidates for admission:—

1. Must be 18 years of age;

2. Must be recommended by the Department of Education or a School Inspector of the Province in which they reside;

3. Must produce satisfactory evidence as to moral character; also medical certificate of health, including successful vaccination.

School of Household Science.

All candidates for admission,—

1. (a) To the Homemakers' Course and Short Course, must have entered their eighteenth year; and
   (b) To the Housekeepers' Course, must have entered their twenty-third year.
2. Must produce satisfactory evidence as to moral character; also medical certificate of health, including successful vaccination.
3. Must be able to read and write the English language acceptably and be proficient in the use of elementary mathematics.

When the number of candidates is in excess of the accommodation, preference will be given to young women from the rural districts of Quebec, the Maritime Provinces, and Eastern Ontario.

LIVING EXPENSES.

The charges for board and lodging are—

For each occupant of a double room with single beds.. .. ..$4.00 per week.

A charge of 15 cents extra per meal will be made for all meals served in students' rooms; such meals being provided only when approved by the Superintendent.

A Hospital and Nurses' fee of 50 cents per day (in addition to ordinary charge for board and lodging) will be payable by each student (man or woman) while occupying a hospital room.

The Doctor's fee of $3.00 per student for the session will provide medical attendance, without further charge, to all students.

Students will pay the cost of medicines as furnished.

A laundry fee of $1.00 for the session is payable by all women students, who use the laundry provided in the Women's Building, which will be open at certain times each week for those who may wish to wash and iron small things for themselves.

A charge will be made for all articles which may be sent to the College laundry every week. Printed laundry lists, with prices, will be furnished in duplicate weekly to be filled by students.

Caution Money.—Every student must also, at the time of entrance, make a cash deposit of $5.00 with the Bursar of the College, to cover fines, breakages, etc.; and as soon as any student's deposit is exhausted he or she will be required forthwith to make an additional deposit of the same amount.

TUITION AND LABORATORY FEES.

SCHOOL OF AGRICULTURE.

(For students entering session 1910-11).

Tuition Fee.

First and Second Years:—

Students belonging to the farming community of the Province of Quebec. Free

Third and Fourth Years:— Do. Do. $50 per year

All Years:—

Other residents of Canada ..... $50.00 per year

Students from outside Canada .... $100.00 per year

Laboratory Fees

First and Second Year Students.... $5.00 per year
Third and Fourth Year Students... $15.00 per year

Registration Fee.

Short Course Students..... $1.00 for each course

SCHOOL FOR TEACHERS.

(For students entering session 1910-11).

Tuition—Residents of the Province of Quebec Free
Other residents of Canada.. $75.00 per year
Students from outside Canada $100.00 per year
Laboratory Fee ..... $5.00 per year

SCHOOL OF HOUSEHOLD SCIENCE.

(For students entering the session 1910-11).

Tuition:—Homemaker and Housekeeper Courses—For students belonging to the farming community of the Province of Quebec Free
Other residents of Canada.. $75.00 per year
Students from outside Canada, $100.00 per year

SHORT COURSES.

Tuition Fee.

Students belonging to the farming community of the Province of Quebec.... Free
Other residents of Canada..... $25.00 per year
Students from outside Canada..... $25.00 per year

Laboratory Fees.

Homemaker and Housekeeper Courses, $10.00 per year
Short Courses, ... $5.00 per year

FEES FOR PARTIAL AND SPECIAL STUDENTS.

(Schools of Agriculture and Household Science).

Tuition—per subject $5.00 per term or course.
Laboratory fee—Actual cost of material used.

PAYMENTS AT ENTRANCE.

	Tuition per session.	Laboratory Fee.	Caution Money Deposit.	Four weeks Board in Advance.	Doctor's Fee.	Total.
School of Agriculture:—						
First and Second Years—						
Students belonging to the farming community of the Province of Quebec	Free.	$ 5.00	$ 5.00	$ 16.00	$ 3.00	$29.00
Other residents of Canada	$ 50.00	5.00	5.00	16.00	3.00	79.00
Students from outside of Canada.	100.00	5.00	5.00	16.00	3.00	129.00
Third and Fourth Years:						
Students belonging to the farming community of the Province of Quebec	50.00	15.00	5 00	16.00	3.00	89.00
Other residents of Canada	50.00	15.00	5 00	16.00	3.00	89.00
Students from outside of Canada.	100.00	15.00	5 00	16.00	3.00	139.00
School for Teachers:—						
Residents of Quebec	Free.	5.00	5.00	16.00	3.00	29.00
Other residents of Canada	75.00	5.00	5.00	16.00	3.00	104.00
Students from outside of Canada.	100.00	5.00	5.00	16.00	3.00	129.00
School of Household Science:—						
Homemaker and Housekeeper Courses—						
Students belonging to the farming community of the Province of Quebec	Free.	10.00	5.00	16.00	3.00	34.00
Other residents of Canada	75.00	10.00	5.00	16.00	3.00	109.00
Students from outside of Canada.	100.00	10.00	5.00	16.00	3.00	134.00
Short Courses:—						
Students belonging to the farming community of the Province of Quebec	Per Course Free.	5.00	5.00	16.00	2.00	28.00
Other residents of Canada	25.00	5.00	5.00	16.00	2.00	53.00
Students from outside of Canada.	25.00	5.00	5.00	16.00	2.00	53.00

Payments must be made from time to time throughout each term, at the beginning of each period of four weeks, *strictly in advance.*

Payments in advance may be made for a longer period than four weeks.

No allowance is made on board for absence during temporary suspension from the Residence, nor for absence of less than one week for any cause other than persona illness.

Students who fail at any time to make payment for board promptly in advance *will be charged* $2.00 *extra* for each time such failure occurs.

All fees *are payable in advance*. There is no refund of fees to students who leave for any cause other than personal illness, nor to those who are dismissed for neglect of work or violation of the rules.

The Bursar's office will be open to receive payments from 9 a.m. to 5 p.m. daily—except Saturdays, on which days the hours are from 9 a.m. to 12 a.m.

MISCELLANEOUS FEES.

Supplemental Examinations.

For supplemental examinations, the fee is $2.00 for each examination period (morning or afternoon). It must be paid to the Bursar not later than the day before the examination, and receipt for the same must be shown to the Professor in charge before the examination papers are distributed. The fee for a special supplemental examination is $5.00

UNIVERSITY FEES.

Matriculation Fees (B.S.A. Course, School of Agriculture), payable to the Registrar, McGill University. See page 71.

REGISTRATION AND ATTENDANCE AT LECTURES.

All students are required to register on the opening day of each term of the School. From every student who fails to register on the opening day, an additional fee will be charged at the rate of $1.00 per day for every day after the date of opening.

Punctual attendance at all classes is required of every student. Absence from classes can be excused only by necessity or illness of which proof must be given to the Dean or Head. The number of times of absence which shall cause the loss of a session shall in each case be determined by the Macdonald College Committee.

The prescribed laboratory or practical work for each course must be done before the student can obtain credit for the course at the sessional examination.

THE COLLEGE YEAR—(1910-1911.)

School of Agriculture.

First term begins.....	September 28th,	1910
and ends	December 22nd,	1910
Second term begins.....	January 4th,	1911
and ends (For First and Second Years).....	April 27th,	1911
(For Third and Fourth Years).	May 26th,	1911

School for Teachers.

First term begins.....	September 1st,	1910
and ends.....	December 22nd,	1910
Second term begins.....	January 4th,	1911
and ends	June 15th,	1911

School of Household Science.

First term begins.....	September 8th,	1910
and ends	December 22nd,	1910
Second term begins.....	January 4th,	1911
and ends	April 13th,	1911
Third term begins.....	April 19th,	1911
and ends	June 15th,	1911

THE BUILDINGS ON THE CAMPUS.

The buildings on the Campus are of fire-proof construction. The walls are of brick and cement; the beams and rafters are of steel, and the partition walls of the rooms are of terra cotta. The roofs, as well as the floors, are of reinforced concrete, and are covered with red tiles. The arrangement of the buildings allows of spacious courts between them, in front, sides, and rear, so that every room has abundance of light.

Every building is provided with a complete system of ventilation, whereby fresh air (warmed in winter) is furnished to every room, including the bedrooms of the dormitories. A duct from each room removes the inside air, and thus insures a continuous circulation of pure air from outside.

The buildings are heated with steam, lighted by electricity, and supplied with water from the College power house. A system of tunnels provides for the distribution of heat, light, power, water, and gas. The power house contains six horizontal tubular boilers of 150 h.p. each, with engines, electric generators, pumps, and a gas plant. The general water supply is taken from the Ottawa River; and drinking water is obtained from a rock-drilled well.

THE MAIN BUILDING.

The grouping of the buildings of the College makes this the centre, as around it stand the residences for men and for women, and the laboratories for the sciences. An annex leading off the main hall on the ground floor, contains the Reading Room and Library, which are admirably adapted for study; above these is the Assembly Hall, where every day the students will gather at the noon hour. The Reading Room has accommodation for 150 readers, and in a series of alcoves there are "working lists" of books covering the current class work in each department. The Library has stack-room accommodation for about 13,000 volumes, and the choice of books has been directed towards bringing together the best of modern literature upon the subjects of the curriculum of the College.

The Assembly Hall has seating capacity for about 650 persons, and the large pipe organ makes the room well adapted for organ recitals. It is used also for the lectures which are given at intervals during the year by men and women prominent in various branches of social life and endeavour.

The class rooms and offices of the School for Teachers occupy the central portion of the second and third floors of this building. They are well equipped with desks and tables and are thoroughly lighted and ventilated. In addition to the class rooms there are—a good sized lecture room, centrally located on the second floor, in which demonstrations can be given to advantage by means of charts, models and other material.

The class rooms and laboratories of the School of Household Science occupy the end portions of the second and third floors. There are two large kitchens, each with working places for 28 students, for practice work in cookery; a dining room where experience is obtained in serving simple meals and special menus, and in the decoration of the table; a large sewing room for practice in hand and machine sewing; dressmaking and millinery rooms; a laundry for practical work in the best methods of washing, cleaning, and ironing; house decoration room for the study of the principles and methods of the furnishing and decoration of the home.

The laboratories and workrooms for Nature Study and Manual Training are situated on the first floor and are well equipped for efficient work in those branches of study.

THE BIOLOGY-BACTERIOLOGY BUILDING.

This building lies to the northeast of the main building, and is connected with it by a covered corridor. It is 172 feet long, and from 72 to 86 feet wide, and two stories high. It has a high basement and a good attic, where good rooms will be available when required. As in the Chemistry-Physics building special attention has been given to heating and ventilation. Thermostats are installed in several of the rooms, and special flues have been constructed for the forced removal of impure gases. Steam, hot water, cold water, and gas are supplied to such laboratories as require them.

The Department of Biology occupies half of the building. On the first floor are the office and Private Laboratory of the Professor of Biology, the Laboratory of Plant Physiology, 48 feet by 28 feet, and the Histological Laboratory, 42 feet by 28 feet. On the second floor are the Elementary Laboratory, 50 feet by 28; the Elementary Entomological Laboratory, 33 feet by 26 feet; the Advanced Entomological Laboratory, 28 feet by 28 feet; the office for the lecturer; two research rooms; two store rooms, a large lecture room; a museum, and rooms for photography.

In the basement is a room for the preparation of insecticides and fungicides in the investigation of plant diseases. A greenhouse and insectary attached to the building furnish facilities for the study of the activities of growing plants, plant physiology, and the life histories of insects.

The Department of Bacteriology occupies about one-half of the building. The rooms have high ceilings, and are well ventilated and lighted. The windows of the rooms in which microscopes are used are furnished with a lower sash of ground glass, in order to give even illumination for microscopic work. The floors of most rooms are of maple, but those in which much water is used are of coloured cement. All laboratories are supplied with high and low pressure steam, hot, cold, and distilled water, gas and vacuum. All the steam radiators in the laboratories may be regulated to any required temperature.

Among the principal rooms are the following: In the basement, a suite of photographic rooms, equipped with a large Zeiss photomicrographic outfit and arranged for electric light as illuminant; several dark rooms for students' use, furnished with the necessary water and sink accommodation; a mechanical apparatus room in which high power centifuges, shaking apparatus and other mechanical appliances, which can be geared to an electric motor, are installed. A series of cool-rooms for fermentation work are also provided for in the basement.

On the first floor there are an office and private laboratory for the Professor of Bacteriology and a large elementary laboratory seating fifty students. Each student has five square feet of table-top, and three drawers and a cupboard for storing the materials and apparatus—gas and water are in front of each seat. The table-tops are covered with cork carpet ebonized. A large preparation room, with a number of sinks, opens directly off this laboratory. An autopsy room, adjoining the animal house, is furnished with enamelled lava tables and the necessary sterilizing apparatus, and gives ample facilities for animal operations and autopsies.

The Dairy and Soil laboratories, each about 30 feet square, are well equipped for instruction and research along the lines mentioned. For example, a large autoclave in the soil room permits the sterilization of large amounts of soil, and the dairy room has a small churn and other dairy apparatus for investigation of dairy problems. A series of four small rooms, well insulated with hollow tile and cork, and thermostatically controlled, give temperatures ranging from freezing to blood heat.

On the second floor there is a laboratory for 20 advanced students. The room is well equipped; each student has a large amount of working space, with ample storage. The table-tops are of enamelled lava. Opening from this room is a kitchen for the preparation of media. This room is also available for four private research laboratories, each of which is fitted up for experimental work. A suite of three rooms for photographic use, including a studio with overhead lighting, a large room for museum purposes, and the lecture room in amphitheatre style, seating 160, are used in common with the Department of Biology.

THE CHEMISTRY-PHYSICS BUILDING.

This is a two-story structure, 172 feet long, and from 72 to 86 feet wide, lying to the northwest of the main building, and connected with it by a covered corridor. The basement is well lighted and ventilated, and is sub-divided into large rooms which may be used for laboratories as required. Special care has been given to the construction of flues for the removal of noxious fumes, and the admission of pure air. The laboratories are well equipped with fume cupboards, and supplied with distilled water, cold water, hot water, steam, and gas.

The fume cupboards have lead floors and a system of ventilation distinct from the general system of the building. Acid-proof tables of enamelled lava are provided for burette work. The balance tables, also of enamelled lava are attached to the walls of the building, to ensure steadiness.

A large amphitheatre lecture room on the second floor is used by the two Departments in common. This has seats for 165 students, and can readily be darkened for the purposes of optical experiments and lantern projections.

Adjoining the lecture room are rooms for the preparation of lecture experiments and the storage of lecture apparatus.

The Department of Chemistry occupies about half the building. In the basement, are rooms for ether extractions in the determination of fat, and for Kjeldahl digestions and distillations in the determination of nitrogen in foods, fertilizers, etc., a store room for acids, a dark-room for work with the polariscope, such as the determination of sugar, and a suite of rooms for photography.

On the main floor are the Professor's office and private laboratory, supply-rooms for apparatus and chemicals, and laboratories for Elementary, Advanced, and Dairy Chemistry. The Elementary Laboratory is a spacious room of forty feet square, with desk accommodation for seventy-five and hood accommodation for forty students.

The Dairy Laboratory in which instruction will be given in the chemistry of milk, butter, and cheese, has table space sufficient for twenty-four workers. The Advanced Laboratory will accommodate about the same number of students.

On the second floor, in addition to the lecture room and preparation rooms, there are a smaller class-room, laboratories for Organic Chemistry and Food Chemistry, and the office of the Assistant Professor. The Organic Laboratory for practice in the preparation and analysis of carbon compounds, will accommodate a class of about twenty-four; and the Foods Laboratory, a 42 by 28 foot room, will allow ample space for a somewhat greater number for practice in the examination of foods, for the determination of nutritive value and for the detection of preservatives and adulterants.

The Department of Physics occupies one-half of the building. In the basement are two storerooms and two large, well-lighted laboratories. One of the storerooms is used to hold a supply of the different types of soil for winter work in the

classes; the second storeroom is for large pieces of apparatus, lumber, etc, One of the laboratories is to be used for practice work in concrete mixing, such as making concrete troughs, tile, building blocks, etc. The second laboratory is to be used for setting up power apparatus, such as a gasoline engine, steam engine, waterwheel, etc. On the first floor is the office of the professor and his private laboratory; also a laboratory 40 feet by 25 feet, to be fitted up with apparatus for advanced work in molecular physics, heat and light, in connection with the work in climatology and soil physics, and a laboratory, 48 feet by 28 feet, for work in soil physics—the equipment being such that 30 students may make the same experiment at the same time. There is also an apparatus room, 13 feet by 28 feet. On the second floor is a large Elementary Laboratory, 50 feet by 28 feet, used for the work in Physics in the School for Teachers and the School of Household Science. It is so equipped that each student may do 55 quantitative experiments in the year's work. There are 15 sets of apparatus for each experiment, so that 30 students may make the same experiment at the same time. Adjoining this is a storeroom for laboratory and demonstration apparatus.

A second laboratory, 40 feet by 28 feet, is used for the elementary work in Mechanics in the School of Agriculture. It is well equipped with simple farm appliances such as crowbars, forks, shovels, wheelbarrows, pulleys, a Jack screw, differential pulley, winch, hydraulic Jack, pump, etc. The plan of the course is to introduce the student to the Science of Physics, by using as a foundation the large fund of practical knowledge which he already possesses of the use of these tools. This knowledge is extended and systematized, and the student learns that the use of every tool is governed by a simple law, thus they are the more readily led to realize that in nature there is law and order everywhere. In addition, on the second floor, there is a large workshop, equipped with a lathe, carpenter's bench and complete set of tools, also a research room, office of the Assistant in Physics, and large lecture room, seating 175 students.

THE DAY SCHOOL.

The Day School for the Protestant children of the district is also a practice and observation school of the School for Teachers. The building is similar in construction to the other College buildings. It contains a Kindergarten room, four other class-rooms, and a commodious assembly hall. It is equipped suitably, and is provided with a school garden, which contains plots for the children and also for the student-teachers in training at the College. Close by are illustration plots, used in connection with Nature Study and for instruction in the selection of good seed for cereal crops. They also serve to illustrate what is meant by the rotation of crops, and the protection of crops against weeds, insects, and diseases.

THE AGRICULTURE-HORTICULTURE BUILDING.

This building occupies a prominent position to the northeast of the Biology and Main buildings. It looks towards the west, and has a frontage of 194 feet. The north wing is devoted to Home Dairying, the south wing to Horticulture, and the central portion to Agriculture, Live Stock, Cereal Husbandry, and Farm Machinery.

The offices of the Department of Animal Husbandry are immediately to the right of the main entrance and the lecture rooms occupy the east wing of the first floor. In this wing there is a veterinary office, slaughter room, cold storage for carcasses, and a large octagonal judging pavillion, 92 feet by 44 feet, provided with raised seats for the accommodation of students and a central ring, into which animals may be brought for comparison and judging. The walls of the slaughter room are of white glazed brick, and the room is provided with hoisting wheel, windlass and tracking which extends into both the cold storage and lecture room. The department supplies the College Dining Room with what beef, mutton and pork is required, and is thus enabled to give the students demonstrations in the slaughtering and dressing of animals, and at times may require them to assist in the work. In the judging

pavilion, practical instruction is given on the characteristics of the different breeds of horses, cattle, sheep and swine, on their feeding and management, on the principles of breeding, on judging, and on the keeping of herd books.

The Department of Cereal Husbandry occupies the east end of the second floor. In addition to the plant and seed store rooms, there is a large, well-lighted seed selection room, a class room, an office and a combined exhibition and seed judging laboratory. The seed laboratory is 92 ft. by 44 ft. and is admirably equipped for a detailed study of all classes of field crops. The large, high windows admit an abundance of light while the illustrative material in the exhibition cases constitutes a readily available reference for class and laboratory purposes.

The Department of Horticulture occupies the south wing of the building to the right of the main entrance. In the high basement are a potting and general work room, 26 feet by 26 feet; a laboratory room, 28 feet by 26 feet; a fruit packing room, 46 feet by 22 feet; and a store room. On the first floor are the offices, a record room, a horticultural museum room, 38 feet by 26 feet; and a pomology room, 30 feet by 26 feet. The class rooms are on the second floor. There is also a refrigerator for fruit products on the first floor.

This Department is well equipped with class-rooms, work-rooms, and greenhouses for lecture and laboratory instruction in the study of fruits, flowers, and vegetables, in the propagation of plants by grafting, budding, and fertilization, in seed testing, etc. Under its control are the vegetable gardens, the small-fruit plantations, and the orchards, where students can become familiar with the best methods of growing fruits and vegetables. Opportunities will be given for the study of the best methods of spraying, of packing, and of handling fruits and vegetables for the market by means of practical demonstration.

The Department of Home Dairying occupies the north-west wing of the building to the left of the main entrance. It contains an office, a milk-testing room, 30 feet by 23 feet;

a cheese room, 40 feet by 30 feet; a butter room, 40 feet by 30 feet; and a cheese-ripening room, 18 feet by 20 feet. The walls of these rooms are lined with glazed bricks, and the floors are of cement. There are also two refrigerator rooms for dairy products on the same floor, and cellars for cheese-ripening in the basement. The class-rooms are on the second floor.

This Department is equipped with all the most modern appliances for teaching butter and cheese-making on the farm, such as pasteurizers, cream separators, churns, butter workers, cheese vats, etc. Instruction will be given also in the use of the lactometer and Babcock tester, and in the handling of pure milk and cream for the market.

The Department of Farm Machinery occupies the ground floor at the east end. Its purpose is to give instruction in the management and care of the farm machinery. Practical exercises are given in taking apart and putting together the parts of reapers, mowers, manure spreaders, plows, etc., and in repairing and replacing broken or missing parts. In this building there is a blacksmith's shop, with forges, anvils, etc.

THE POULTRY BUILDING.

The Poultry building lies to the north of the Agriculture-Horticulture building. The main portion, 70 feet by 40 feet, is two-storied, and has a roomy basement. The western annex furnishes the brooder house, and the eastern annex, a series of pens for the chief breeds of fowl.

This branch is thoroughly equipped and organized for giving practical instruction in the management of poultry. The main building contains a large lecture room, a reading room, incubator rooms, a feeding room, a judging room, and other work-rooms, besides offices, wash-rooms, and lavatories.

Attached to this building is a permanent house divided into sections containing pens of the various breeds kept. This house shows many ideas of value that may be used in the intensive system. The extensive system is demonstrated in the poultry yards close by, where a large number of colony houses,

each containing from 25 to 50 birds, to serve as illustrations of the profitable management of the main commercial breeds.

About 1,000 hens are in the flock, and over 3,000 chickens of this season's hatching. The breeds are Barred Plymouth Rock, White Wyandotte, Rhode Island Red, Faverolle and White Leghorn. The hens live in the colony houses without any artificial heat throughout the winter. They are fed on dry grain; and lay well even in the coldest weather. It has been 22 degrees (Fahr.) below zero in the colony houses without injury to the fowls. An excellent brooder house is in operation.

THE WOMEN'S RESIDENCE.

This building has bedroom accommodation for over 200 women. It contains also reception rooms, a music room, apartments for the Superintendent and the Housekeeper, a large hospital apartment, and rooms for women teachers; the large College dining room, 100 feet by 60 feet; a gymnasium, 100 feet by 60 feet; a swimming pool, 60 feet by 27 feet; bath rooms and lavatories. It is connected with the main building by a covered corridor. At the north end are well-appointed kitchens, bakery, refrigerator rooms, serving-pantries, and servants' quarters.

THE MEN'S RESIDENCE.

This corresponds in architecture and in plan of rooms to the Women's residence, and is on the opposite side of the Campus. It contains accommodation for over 175 men, also reception rooms, bath rooms, and lavatories, a gymnasium and a swimming pool.

THE MAIN FARM.

The farm buildings consist of a farm house, a number of cottages, a large storage barn for grain and hay, a horse barn, cattle stables, judging arena and piggery. All the buildings in which the animals are housed are of fireproof construction, have been erected upon a generous scale, and are convenient and well equipped. The horse barn has accommodation for

over 20 horses, and has waggon shed and hay loft attached. The cattle stables include a dairy and cold storage, a calf barn with boxes for 60 calves, a dairy stable with stalls for 100 cows, and a bull stable and loose box barn, with accommodation for 120 young cattle, beef cattle and bulls. The judging arena attached is octagonal in form, 60 feet in diameter, and has accommodation for 250 students. The corridor extending from it provides a fine runway for horses and facilitates the study of action.

The College owns a large herd of Ayrshire cattle which is reputed to be one of the best in the country. Smaller herds of Dairy Shorthorns and of French Canadians have been gathered together, the former having been imported from England during the summer of 1907. The Dairy herd supplies the College with milk and the calves from deep-milking cows are raised and held for sale to the Agricultural Societies in Quebec. The herd of swine includes representatives of the improved large Yorkshire, Berkshire and Tamworth breeds. The herd includes not only imported stock, but also sows purchased from some of the leading Canadian breeders.

The Live Stock and Grain Farm, comprising about 387 acres, is in good state of cultivation, well drained, and provided with well-built roads. It is divided into four ranges. The system followed is in general a four-year rotation. This season (1910) Range 3 is in grain, Range 4 in hay, Range 1 in pasture, and Range 2 in field roots, corn, and potatoes.

CEREAL HUSBANDRY DEPARTMENT.

The work of this department consists in the improvement by selection and breeding of all classes of field crops. Approximately 425 plots are devoted to the growing of cereals, clovers and grasses. Five rotation farms have been laid out for a study of rotation cultivation and good seed. Immediately adjoining the school gardens, four acres of land have been set aside for illustration work with cereals. Here, experiments are conducted to determine the best dates and rates for seed-

ing; the best combinations and proportions of grains for the production of mixed grain for feed; the influence of size of seed on the yield and quality of the succeeding crops, etc. An entire range in this field is devoted to plant improvement, in which upwards of 570,000 individual plants have been tested. The main field work of the department is on both sides of the railway tracks, north of the Poultry buildings. Here, those interested will have an opportunity to study the various grains, grasses, clovers, alfalfa, roots, corn, etc. The plots are all plainly labelled to enable visitors to understand the nature of the experiments.

THE HORTICULTURAL DEPARTMENT.

The laboratories and greenhouses give the student an opportunity of gaining horticultural knowledge in a practical way during the winter months. One greenhouse is devoted entirely to giving the students actual work in the laying out, planting, care, and management of trees, small fruits, vegetables, etc. The other greenhouses are utilized for the development of greenhouse crops, both flowers and vegetables, which are grown along commercial lines. At the same time experiments to determine, if possible, how best to develop these crops for the greatest profit are being conducted.

The Horticultural Farm covers an area of about 70 acres. On this, 30 acres are orchard, 20 of which are devoted to hardy varieties of apples; the aim being to determine the best way to grow them to develop not only productive but long lived trees. To determine this a series of cultural experiments were begun in 1909. Each row running north and south represents a variety, and the orchard is divided into plots taking three rows east and west for a cultural or fertilizing test as the case may be.

The variety apple orchard covers about five acres, four trees of each variety being planted. The pear and plum orchard occupies about three acres. The plums in this orchard are principally those of American origin. Plums of European

origin, and also cherries, are planted as fillers in a part of the commercial orchard.

On this farm is a commodious brick barn for the storage of garden and orchard produce, the grain grown on the experimental plots, the implements of cultivation, the machinery for threshing and cleaning seed, and for the stabling of horses.

Macadam and other roads have been laid out, and built to give ready access to the various sections of the farm.

THE SCHOOL OF AGRICULTURE.

Courses are offered in the School of Agriculture as follows:

A. short courses of two weeks each.

B. A Two-Year Course leading to a diploma.

C. A Four-Year Course leading to the Degree of Bachelor of Science, in Agriculture.

A. The Short Courses are made as practical as possible and are provided in the subjects of:

1. Live Stock.
2. Cereal Husbandry.
3. Horticulture.
4. Poultry.

B. The Two-Year Course embraces studies in:

1. Animal Husbandry.
2. Field and Cereal Husbandry.
3. Horticulture.
4. Poultry Husbandry.
5. Home Dairying.

C. The Four-Year Course. This is a continuation of the Two-Year Course for the purpose of affording opportunity for more advanced knowledge of rural economy, and more thorough and exact acquaintance with the Natural Sciences and their applications to the conditions, processes, and organizations of rural life.

SHORT COURSES IN AGRICULTURE.

The following Free Short Courses will be offered in 1911:—

1. Live Stock,
   Cereal Husbandry, January 19th to 29th.

2. Horticulture,
   Poultry-Keeping, February 2nd to 12th.

The course in each Department will be directed to help practical men, who cannot attend the regular courses, to a better understanding of the latest methods in the different branches of Agriculture, and to enable them to carry on their operations and management with greater success and satisfaction, when they return to their occupations. Each course will consist of lectures, discussions, illustrations, demonstrations, and laboratory practice, with materials suited to the course. Live Stock and Cereal Husbandry will be given as one course, part of each day being devoted to each subject. Likewise Horticulture and Poultry-Keeping will be treated as one course.

Students are not received under 18 years of age. There is no other age limit.

In the interests of all the students, the College authorities reserve to themselves the right to accept, and to permit to continue the courses, only those who show capacity and an earnest desire to profit by the instruction.

Each student should be in his place punctually at 8.30 on the morning of the day when the course opens; and he is required to attend punctually and regularly all lectures and demonstrations, and give his earnest and undivided attention to the course.

FEES, ETC.

A registration fee of $1.00 is required for each course in advance.

A deposit of $2.00 is required from each student to cover breakages, etc. The unconsumed portion of this will be refunded at the close of the course.

Rooms and board may be obtained in the village of Ste. Anne de Bellevue. A list of suitable places may be obtained from the Bursar's Office.

DAIRY SHORT COURSE.

One or two special Dairy Short Courses may be arranged during the year.

THE TWO-YEAR COURSE.

This course is eminently practical, and is specially arranged to meet the needs of farmers' sons who purpose returning to their farms. During the first year the practical subjects, such as Animal Husbandry, Cereal Husbandry, Horticulture, Poultry, etc., are emphasized. It is believed that the valuable but rather indefinite information that the student already possesses regarding farm life and processes, can be used to good advantage from the outset in the building up of a solid superstructure of agricultural knowledge, when enlarged and strengthened in all parts by the introduction of scientific principles gained in the biology, bacteriology, physics, and chemistry laboratories.

In the Second Year, more attention is given to the Sciences bearing on Agriculture, and to the acquisition of the facts upon which the great principles of agriculture are based. Considerable time, however, is devoted to the so-called practical Agricultural subjects, in continuation of the work of the First Year.

Courses (as given in outline in the announcement of Macdonald College) in the following subjects constitute the work of the First Year:

Animal Husbandry—Courses 1, 2, 3, and 8.
Biology—Courses 1 and 2.
Cereal Husbandry—Course 1.
Chemistry—Course 1.

Drawing.
English—Course 1.
Farm Machinery.
History—Course 1.
Home Dairying—Course 1.
Horticulture—Courses 1, 2, and 3.
Manual Training.
Mathematics.
Nature Study—Courses 1 and 2.
Physical Training.
Physics—Courses 1 and 2.
Poultry—Course 1.

Courses in the following subjects constitute the work of the Second Year:

Animal Husbandry—Courses 4, 5, 6, 7, and 8.
Bacteriology—Course 1.
Botany—Courses 3, 6, and 7.
Cereal Husbandry—Courses 2, 3, and 4.
Chemistry—Courses 2 and 3.
Dairy Husbandry—Course 2.
Drawing.
English—Course 2.
Entomology—Course 4.
Geology—Course 1.
History—Course 2.
Horticulture—Courses 4, 5, and 6.
Manual Training.
Mathematics—Course 2.
Physical Training.
Physics—Courses 3 and 4.

The subjects to be taken up in the Third Year (given in outline in the announcement of Macdonald College) are as follows:

Animal Husbandry—Course 9.
Bacteriology—Course 2.
Biology—Courses 7, 8, 9, and 10.

Cereal Husbandry—Course 5.
Chemistry—Courses 4, 5, and 6.
English—Course 4.
French.
Horticulture—Course 7.
Mathematics.
Physical Training.
Physics—Courses 5, 6, and 7.
Rural Economics—Course 1.

FOURTH YEAR COURSE.

Students may choose one of the four following Courses:

1. Animal Husbandry.
2. Cereal Husbandry.
3. Horticulture.
4. Selective.

Animal Husbandry Course.

Animal Husbandry—Courses 10, 11, and 12.
Cereal Husbandry—Course 6.
Poultry—Course 2.
Horticulture—Course 10.
Chemistry—Courses 7 and 8.
Bacteriology—Courses 3 and 5.
Biology—Courses 6, 11 and 13.
Physics—Courses 8 and 9.
English—Course 4.
French.
Mathematics.

Cereal Husbandry Course.

Cereal Husbandry—Courses 6, 7, 8, 9, and 10.
Biology—Courses 4, 6, and 11.
Bacteriology—Course 3.
Chemistry—Courses 7, 8 and 9.
Physics—Courses 8, 9, and 10.

English—Course 4.
French.
Mathematics.

Horticulture Course.

Horticulture—Courses 8, 9, 10, 11, 12, and 13.
Biology—Courses 4, 6, 11, and 12.
Bacteriology—Course 3.
Chemistry—Courses 7 and 9.
Physics—Courses 8 and 9.
English—Course 4.
French.
Mathematics.

Selective Course.

Students may make a selection from the courses offered in the three preceding options, after full consultation with, and consent of, the Faculty of Agriculture.

NOTE REGARDING THIRD AND FOURTH YEAR COURSES.

1. A record of each student's practical work throughout the course will be kept.

2. A record of each student's reading, as tested from time to time, will also be kept.

3. Practical, as well as written examinations will be held whenever such examinations are necessary.

4. Each student is required to prepare a Thesis on some branch or department of the work in his special course, under the direction of the professor in whose department the work is done. The subject is to be chosen not later than the end of the Third Year, and submitted for the approval of the Staff on or before May 1st. The Thesis must be based chiefly on original investigation, and will be followed by an oral examination before a committee of the Staff appointed for the purpose. It must be typewritten on letter-sized paper, and handed to the committee of adjudication on or before the first of April of the Fourth Year.

SPECIAL COURSES.

Any person may come to the College at any time for special work, with more or less instruction from the person in charge.

Such students must board out, and pay a fee of $5.00 per subject, per term, together with actual cost of laboratory material.

EXAMINATIONS.

There are two examinations in each year, viz., at Christmas and at the end of the session. Succesful students are arranged in three classes at the sessional examination. Those who obtain 75 per cent. and over are placed in the first class; those who obtain 60, and less than 75 per cent., in the second class; and those who obtain 40, and less than 60 per cent., in the third class.

Students conditioned in one or two subjects will be required to write supplemental examinations in these subjects.

Students conditioned in more than two subjects will be considered as having failed to pass the examinations.

Candidates for supplemental examinations must notify the Principal, in writing, at least one week before the regular dates fixed therefor, viz.:—

1. In subjects on which an examination was held at the end of the session—on the day following the opening of the next session.

2. In subjects on which an examination was held at Christmas, or at any other time before the regular Spring examinations—at a date, or dates, to be fixed, about the time of the examinations held at the close of the session.

Supplemental examinations taken at any other time must be arranged for with the Dean. For regulations regarding fees for supplemental examinations, see page .

THE DIPLOMA IN AGRICULTURE.

A student who has taken the regular Two-Year Course in the School of Agriculture, as prescribed in the Announcement, and has passed all the examinations—written, oral, and practical—shall be entitled to the Diploma in Agriculture.

THE B. S. A. DEGREE.

Students who shall have completed the regular course of study in Agriculture, as prescribed in the Announcement; shall have passed the prescribed examinations for graduation; and shall have performed such exercises as may be prescribed to that end—the whole to the satisfaction of the Faculty of Agriculture,—shall be entitled to the degree of Bachelor of Science in Agriculture; and the designation of the Degree, when abbreviated, shall be the letters B.S.A.

For entrance requirements see page 26.

THE SCHOOL FOR TEACHERS.

By an agreement with the Government of the Province of Quebec, confirmed by an Act of the Legislature, it was provided that a school for the training of teachers for the schools under the control of the Protestant Committee of the Council of Public Instruction should be established and carried on at Ste. Anne de Bellevue in lieu of the McGill Normal School in Montreal, under the regulations of the Protestant Committee and in the manner hereinafter mentioned.

The Trustees of Macdonald College undertook in the said agreement:—

"(1) To provide and maintain at their own expense on the "said property at Ste. Anne de Bellevue, class-rooms, labor-"atories, library, assembly hall, offices, and other rooms, fully "equipped and in every way suitable for the purposes of a "school for the training of teachers according to the present "requirements of the Province;

"(2) To carry on therein at their own expense, a school "for the training of teachers for the schools under the con-"trol of the Protestant Committee, the teaching and training "to be given by said school to be in all respects equal to the "present standard and requirements of the Province, and to "be carried on in accordance with the regulations made from "time to time by the Protestant Committee, such training to "include efficient courses in the study of nature, in household "science, and in manual training;

"(3) To provide and maintain, without expense to the "Province of Quebec, upon said property, a suitable residence "for the female pupils of said school and a suitable residence "for the male pupils thereof;

"(4) To give free tuition to such pupils as may give, to "their satisfaction, an undertaking to teach in the Province of "Quebec, and to supply board and lodging to the resident "pupils as cheaply as can be done without loss."

"The teaching and training in the said school shall, subject "to the regulations at all times of the Protestant Committee, "be under the direction of a Committee, to be called the "Teachers' Training Committee, which shall consist of the "Principal of McGill University for the time being, who shall "be *ex officio* Chairman; of two persons appointed by the "Protestant Committee; of the English Secretary of the "Council of Public Instruction; of the Professor of Education "in McGill University for the time being; of the Principal, for "the time being, of Macdonald College; of the Head, for "the time being, of the Teachers' Training Department of "Macdonald College; and of one person appointed by the "Corporation of McGill University; the persons appointed, "respectively, by the Corporation of McGill University and by "the Protestant Committee to hold office for a term of three "years and to be eligible for re-election."

This institution is intended to give a thorough training to teachers, by instruction and training in the School for Teachers itself, and by practice in the Practice Schools; and the arrangements are of such a character as to afford the greatest possible facilities to students from all parts of the Province. The Protestant Central Board of Examiners for the Province of Quebec grants diplomas only to teachers-in-training of this School and to graduates of Canadian or other British universities who have received the necessary training.

ANNOUNCEMENT FOR THE SESSION 1910-1911.

The fourth session of this School will begin on the first of September, 1910, and will close on the fifteenth of June, 1911. The students are graded as follows:

1.—*Elementary Class.*—Studying for the Elementary Diploma.

2.—*Kindergarten Class.*—Studying for the Kindergarten Diploma.

3.—*Model School Class.*—Studying for the Model School Diploma.

Detailed information respecting the course for each grade of Diploma will be found in the Announcement of Macdonald College, and may be obtained on application to the Head of the School for Teachers, Macdonald College Post Office, Que.

THE SCHOOL OF HOUSEHOLD SCIENCE.

EQUIPMENT.

The School of Household Science occupies part of the Main Building. The laboratories and class-rooms are situated on the second and third floors.

The equipment consists of two large cooking laboratories or class kitchens, with individual equipment for 56 students; these rooms are connected by a well lighted and roomy pantry, well provided with sinks, shelving, cupboards, and furnished with a large refrigerator. Opening out of one of these laboratories is a small dining room, for lessons in table setting and waitress work.

The class laundry has individual equipment for 24 students, a large steam dryer, mangle, and the necessary complement of ordinary and electric irons, etc.

The large and well lighted sewing room is equipped for thirty students.

The dressmaking room is furnished with special "cutting-out" tables, sewing machines, forms, etc., and cabinets for the exhibition of models and students' work. Two small rooms adjoining the class-room are equipped and used as "fitting" rooms.

One room is assigned for millinery, and one for house decoration. In the latter numerous samples of wall papers, fabrics, etc., are kept for the work of instruction.

A small apartment of two bedrooms, bathroom, dining room, living room, kitchen and pantries, affords facilities for practical work in housekeeping.

Offices for the instructors, pantries, storerooms, locker and cloakrooms are also provided.

The classes in Bacteriology, Biology, Chemistry, Dairying, Horticulture, Manual Training, Poultry and Physics, are held in the College departments devoted to these subjects.

An alcove in the Library is assigned to Household Science, and is furnished with the principal papers and magazines bearing on this subject. The library contains a good working list of books on the various subjects taught in the School.

GENERAL REGULATIONS.

The entrance requirements for the School of Household Science are given on page 386 and candidates for entrance must fill out the blank form of application and return it to the College. Each application will be considered, and the sender informed with regard to its acceptance.

REGISTRATION.

Students are required to present themselves for registration on the opening day of the term. Registration at a later date is permitted only to those who obtain the consent of the Head of the School, and pay the additional fee required. Students may not change the registered programme of their studies without the consent of the Head.

EXAMINATIONS.

Certificates are awarded to students who successfully complete the courses of studies for the one-year homemaker's course, and diplomas to students who complete the two-year housekeeper's course.

Students are required to make a minimum mark of 40 per cent. in each subject, and 50 per cent. of the total.

Examinations for these certificates and diplomas are held at the close of each year. A certain percentage of marks is given for the term's work.

Students conditioned in one or two subjects will be required to write supplemental examinations in these subjects. For regulations regarding fees for supplemental examinations, see page 390.

Students conditioned in more than two subjects will be considered as having failed to pass the examination.

CONDITIONS.

A student whose progress or conduct is unsatisfactory may be required by the Principal to withdraw from the course.

All students are held on probation during their first term.

Absence from classes will be noted regularly, and no student will be excused from work, except by order of the doctor on account of illness.

Students are required to study in their rooms between the hours of 8 and 10 p.m.

OUTLINE OF COURSES.

Courses are offered in the School of Household Science as follows:—

A. A One-Year Home-maker's Course, leading to a certificate.

B. A Two-Year House-keeper's Course, leading to a diploma. (This diploma does not qualify for teaching).

C. A course in simple cookery and needlework lessons is arranged for the School for Teachers. This course is given with a view to helping teachers to create an interest in Household Science amongst their pupils.

D. Several Short Courses each of about three months duration. These courses provide training in practical work in all branches connected with the home.

HOUSEKEEPER'S COURSE.

The Housekeeper's Course is designed to train women as skilled Housekeepers. It opens only in September and continues for two years. The number of students accepted for this Course will be limited to twelve. Candidates must have entered upon their twenty-third year, enjoy sound health, and possess sufficient knowledge of English and Mathematics to master the marketing and clerical work of institution housekeeping. Candidates with experience in practical housework will be given the preference.

The first year's work will be similar to that outlined for Homemakers. This is arranged with the idea of giving the students a broad general knowledge of all pertaining to a home. The senior year is devoted to special work, bearing on housekeeping for larger numbers from a business point of view.

Students, who after three months training are considered as unsuitable by the Faculty will be asked to withdraw from the Course.

During both years of training students will be expected to do a considerable amount of practical work impossible to outline in an Announcement, such as marketing, taking charge of stock rooms, etc. This work has to be accomplished out of Class hours. Housekeeper students will take entire charge of the Apartment for a week during both junior and senior years.

Arrangements will also be made for each student during her senior year to spend one month in the Residence under the Housekeeper, who caters for several hundred people at each meal.

Graduates of this Course who complete six months successful housekeeping in an Institution will be granted a Professional Housekeeper's Certificate.

JUNIOR YEAR HOUSEKEEPER'S COURSE.

	Course
Bacteriology	6
Chemistry	12
Cookery	1
Dairying (Elective)	4
English	8
Foods	1
Home Nursing	1
Horticulture	14
Household Furnishing	1
Household Management	1
Household Sanitation	1
Household Handicraft	6
Laundry	1
Millinery	1
Needlework	1
Physical Training	—
Physics	13
Physiology	1
Poultry (Elective)	4
Practical Housekeeping in Apartment.	

SENIOR YEAR HOUSEKEEPER'S COURSE.

	Course
Bacteriology	6
Biology	5
Cookery	2
Chemistry of Foods	14
English	9
Home Nursing and Emergencies	1
Marketing	1
Institution Laundry Work	3
Institution Management	1
Physics	14
Physiology	2
One week's practical housekeeping in the Apartment and one month in the Residence	

HOMEMAKER'S COURSE.

The object of this Course is to fit girls for the duties of the homemaker. The home-maker from the nature of her work is thrown very largely on her own resources, and should be capable of dealing intelligently with difficulties as they arise. The courses are therefore planned to give the student a good foundation in the different branches of ordinary household work supplemented by those scientific studies which have a bearing on the subjects of cookery, laundry, hygiene, etc. Above all, it is desired to awaken a girl's interest in the wider questions of sound bodies, wholesome dwellings, and comfortable homes.

The following subjects constitute the work of this course.

	Course
Bacteriology	6
Chemistry	1
Cookery	1
Dairying	4
English	8
Foods	1
Home Nursing	1
Horticulture	14
Household Furnishing	1
Household Management	1
Household Sanitation	1
Laundry	1
Manual Training	6
Millinery	1
Needlework	1
Physical Training	—
Physics	13
Physiology	1
Poultry	4

Practical Housekeeping in Apartment one week.

SHORT COURSE IN HOUSEHOLD SCIENCE.

This course is arranged for those who can only spend one term of twelve weeks at Macdonald College. It provides training in practical work in all branches connected with the home, with as much theory to explain the manual work as the time allows for.

The aim is to train students to look on all branches of house-work as interesting and scientific.

Three short courses will be given:

Autumn Courses . . . . . Sept. 22nd to Dec 22nd.
Winter Course . . . . . Jan. 5th to March 23rd.
Spring Course . . . . . March 30th to June 15th.

Candidates for these courses must be eighteen years of age, and have a good general education.

Candidates who desire to take more advanced sewing will be required to exhibit articles made by themselves as proof of their proficiency in plain sewing.

No examinations will be held in connection with this course, and no certificates are awarded.

The following subjects constitute the twelve week's work:

	Course
Cookery	1
Foods	1
Home Nursing and Hygiene	1
Household Management	1
Household Handicraft	6
Laundry	2
Millinery	1 or 2
Needlework	1
Sanitation	1
Home Poultry Raising	—
Home Gardening	—
Home Dairy Work	—

Manual Training as applied to Household purposes.

Lectures on Bacteriology, Biology, and Chemistry, as pertaining to home problems, will be given in the evenings.

GENERAL INFORMATION.

POST-OFFICE.

There is a college post office in the Main building. All students should have their mail addressed in care of Macdonald College Post Office, Que.

RAILWAYS.

Ste. Anne de Bellevue is on the main line of the Grand Trunk Railway and of the Canadian Pacific Railway. Students on arrival at either of these stations, should report at once at the College office in the main building. This is but a short walk from the railways. Arrangements will be made for the transfer of baggage. Baggage checks should be surrendered only at the College office. Students should then report to the Superintendent in charge of the Residence in which they are to live.

On the days preceding the opening days of the fall term, a representative from the College will be at the stations to give information.

COLLEGE ANNOUNCEMENT.

Further details as to the courses, etc., will be found in the Announcement of Macdonald College, which will be sent on application to the Registrar, Macdonald College Post Office, Que.

THE McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

OFFICERS OF INSTRUCTION.

(At Vancouver.)

G. E. Robinson, B.A. (Dal.), Acting Principal and Dean, Professor of Mathematics.
J. K. Henry, B.A. (Dal.), Professor of English.
L. F. Robertson, M.A. (McGill), Professor of Latin.
A. E. Boak, M.A. (Queen's), Lecturer in Greek.
H. Chodat, M.A. (McGill), Professor of Modern Languages.
H. K. Dutcher, M.Sc. (McGill), Professor of Civil Engineering.
J. G. Davidson, B.A. (Toronto), Ph.D. (California), Professor of Physics.
D. W. Munn, B.Sc. (McGill), M.A. (McGill), Professor of Mechanical Engineering and Lecturer in Mathematics.
G. R. Kendall, B.Sc. (McGill), Lecturer in Chemistry.
R. E. Macnaghten, M.A. (Cantab.), Lecturer in French.
Jas. Henderson, M.A., Lecturer in Philosophy.
L. F. Robertson, M.A., Registrar.

(At Victoria.)

S. J. Willis, B.A. (McGill), Dean and Professor of Classics.
E. H. Russell, B.A. (Queens), Professor of Mathematics.
Jeanette H. Cann, B.L. (Dal.), Lecturer in English.
Alice E. O. Henry, M.A. (McGill), Lecturer in Modern Languages.
Percy Elliott, M.Sc. (McGill), Lecturer in Physics.

HISTORICAL SKETCH.

Under an act passed by the Legislature of British Columbia in 1896 providing for the incorporation of High Schools as

Colleges affiliated to recognized Universities, Vancouver High School became Vancouver College, and was admitted to affiliation for the First Year in Arts by the Corporation of McGill University. Work was begun under this new relationship, in 1899, and by 1902 such progress had been made that an extension of affiliation was granted to cover the first two years in Arts.

The need of University connection more intimate still than that of affiliation and also an extension of the scope of work came to be felt and urged, and, in 1906, as the result of much careful inquiry and deliberation local legislation was passed, (1) enacting that "The Governors, Principal, and Fellows of McGill University may exercise and enjoy in the Province of British Columbia all the powers, rights, privileges and functions conferred upon them by the Charter granted to them by His late Majesty King George IV, in the second year of his reign and amended by Her late Majesty, Queen Victoria in the sixteenth year of her reign," and (2) authorizing the incorporation of a body politic under the name of "The Royal Institution for the Advancement of Learning of British Columbia," and empowering this body "to establish, at such place in British Columbia as McGill University may designate, a College for the higher education of men and women, such college, in respect of courses of study and examinations, to be deemed a College of McGill University, and the instruction given to its students to be of the same standard as that given in like subjects at McGill University at Montreal." In pursuance of the objects of its foundation, therefore, the Royal Institution in 1906 established at Vancouver the McGill University College of British Columbia, by agreement with the Board of School Trustees, taking over the Arts work previously done by Vancouver College, with extension of the scope and options allowed, and adding the first two years of the course in the Faculty of Applied Science.

In 1908 the work of the College was extended to include the third Year in Arts and in 1909 the course of this year as well

as that of the Second Year was improved by the addition of new options.

In 1908 Victoria College, which for some years previously had been in affiliation with McGill University, was taken over by the Royal Institution as a part of the McGill University College of British Columbia. The instruction offered at Victoria covers the first two years in Arts.

CONSTITUTION OF THE UNIVERSITY.

Under the Act of the Legislature of the Province of British Columbia, above referred to, the Royal Institution for the Advancement of Learning of British Columbia is constituted a body corporate with all the usual rights and privileges of corporate bodies. The members of the Royal Institution are the Governors of the College and, as such, control the finances, make statutes and by-laws, appoint professors and perform all other administrative duties. The President of the Royal Institution is, *ex officio,* Chancellor of the College. The Principal is the academic head and chief administrative officer. He is appointed by the Board of Governors, of which body he is also a member, *ex officio.* The College is undenominational in character.

COURSES OF STUDY.

The College is at present offering instruction in the first three years of the Arts course of McGill University, and in the First and Second Years of the Course in Applied Science. The standard of work is that of McGill University, all the examinations being conducted by the examining Board of that Institution. It is expected at a very early date to offer instruction in the full course leading to the B.A. degree. Until such can be done candidates passing the examinations at the end of the Third Year are admitted to the Fourth Year in McGill University without further examination. Those who complete the two years' course in the Faculty of Applied Science are also admitted to the Third Year of that Faculty in McGill University.

THE SESSION.

The University Year or Session is divided into two terms, the first extending to the Christmas vacation, and the second from the expiry of the Christmas vacation to the end of the Sessional examinations in April. The Session 1910-11 will begin on Monday, October 3rd, 1910.

Full information regarding matriculation requirements, courses of study and all other matters in connection with the College may be obtained from the Registrar.

GRADUATES.

SESSION 1909-1910.

PASSED FOR THE DEGREE OF BACHELOR OF ARTS.

(*In alphabetical order.*)

MEN.

Armstrong, John Douglas
Bruneau, Ishmael Edgar
Cockfield, Harry Reid
Papineau-Couture, R.
Cushing, Charles, Jr.
De Sola, Bram Charles
Elder, Aubrey Huntingdon
Gordon, James Thom
Hutchinson, Samuel Arthur
MacDonald, Alexander Boyce
McGannon, Edward Matthew
McMurtry, Alexander Ogilvie
MacNaughton, Gordon Francis
Mabon, John Bertram
Manning, Viril Zenies
Mariotti, Humbert Cecil George
Phipps, Roy Gage
Powles, Percival S. C.
Prentice, Norman Allan
Reilly, John Archibald Clark
Robinson, Bernard Seabury
Simpson, Alan Cradock
Skaling, Arthur Clifton
Paterson-Smyth, Charles
Ramsay, Irving D.
Ross, Stanley Graham
Runnells, George Wilfred
Solomon, Edward
Stanton, Frank Herbert
Sutherland, Francis Campbell
Thorne, Oliver
Tippet, Richard Simonds
Wilson, Percy D.
Wood, Frederic Gordon Campbell

WOMEN.

Badgley, Elizabeth Ruth
Baylis. Dora Campbell
Bennetts, Edith Eleanor
Brehaut, Cora
Brower, Margaret Neilson
Brownlee, Hazel
Carr, Robena Margaret
Cruickshank, Eleanor
Green, Cecelia Rebecca
Lamb, Elvie Dora Maud
Lawlor, Emma Goodfellow
McEwen, Helen Findlay
McKinnon, Annie Margaret
MacKinnon, Marion Grace
McWhinney, Margaret Olive
Miller, Clare Bothwell
Mount, Beatrice Ruth
Murchison, Vivian Gwendolyn Victoria.
Murphy, A. Winnifred
Plaisted, Lilian Dorothy Wright
Rosenberg, Hannah Naomi
Seymour, Louise Elsie
Taylor, Margaret
Trenholme, Katherine Torrance

PASSED FOR THE DEGREE OF BACHELOR OF MUSIC.

Donnelly, Beatrice.

PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE.

(Applied Science.)

(*In alphabetical order.*)

Explanation of letters following the names:—

(Ar.)	Graduate	in the	Department of	Architectural Engineering
(Ch.)	"	"	"	Chemistry
(Ci.)	"	"	"	Civil Engineering
(El.)	"	"	"	Electrical Engineering
(Me.)	"	"	"	Mechanical Engineering
(Meta.)	"	"	"	Metallurgical Engineering
(Mi.)	"	"	"	Mining Engineering
(Ry.)	"	"	"	Railways

Adrian, Robert Wilson (Me.)
Anderson, Goldie Fraser (Ci.)
Archibald, Max Stanfield Eaton (Mi.)
Ayer, Kenneth Roger, B.A. (Mi.)
Beagley, Thomas George (Me.)
Blackett, Victor St. Clair (Me.)
Boright, George Kenric, B.A. (Bishop's), (El.)
Brégent, Edmond (Mi.)
Brown. Osburn Nicholson (Mi.)

Brunton, James Stopford Lauder (Mi.)
Burland, George Lewis (Mi.)
Buttenshaw, Alfred Sidney (Me.)
Campbell, William Boyd (Ch.)
Clark, Albert William Gardner (Ry.)
Cloran, Joseph Harry Donavon (Ci.)
Cole, Francis Thornton (Ci.)
Colter, Ashley Alexander (Ci.)
Cowles, Eugene Pomeroy (Mi.)
Cowley, Arthur Thomas Noel (Ci.)
Cox, John Raffles (Mi.)
Dakin, Frederick Walter (Ci.)
Daubney, Charles Bruce (Ci.)
Daubney, James Edwin (Me.)
Dawes, Andrew Sidney (El.)
de Hart, Joseph Bertram (Ci.)
Dennis, Thomas Clinton (Ci.)
Derrom, Donald Laird (Ry.)
Dobson, Arthur Alexander (Me.)
Donald, Edward Douglas (Me.)
Dowie, Kenneth William (Ar.)
Ekers, Henry Austin (Me.)
Elkins, Robert Hart Bredon (Mi.)
Ewart, Douglas Marsden (Ci.)
Ferrier, Tyrrell (El.)
Fisher, Seymour Jost (Me.)
Fowler, Frank Scott (Mi.)
Fregeau, John Henry (El.)
Gibbins, Gwynn Gilbert (Mi.)
Gilchrist, Thomas Ernest (El.)
Gill, Peter Clark (El.)
Gillies, George Ackland (Mi.)
Gladman, Victor Lionel (Ar.)
Goodstone, Arthur Simon (Ci.)
Graham, Harold Mitchell (Me.)
Grahame Dallas Forrest (Me.)
Hanson, William Gordon (Ci.)
Harris, Norman Charles (Me.)
Hattie, James Blake (Ci.)
Haultain, Alexander Gordon (Mi.)
Hollinsed, Richard Eyare Leslie (Me.)
Jackson, Donald Alphonse (El.)
Jost, Leslie Gordon, B.Sc. (Acadia), (Ci.)
Knewstubb, Frederick William (Ci.)
Kohl, George Hutton (El.)
Landry, Wilfred Andrew (El.)
Lomer, Gerald Bell (Me.)
MacAfee, Ralph Evans (El.)
MacDiarmid, Archibald Alexander (El.)
Macdonald, James Harrison (El.)
Macfarlane, Robert George (Mi.)
McHenry, Morris James (El.)
MacKay, Edward (Me.)
McLean, Calvin Stowe (Mi.)

McNab, Lewis Grant (Ry.)
McNaughton, Andrew George L. (El.)
Magrath, Charles Bolton (Me.)
Macrae, John Morrison (Me.)
Malloch, Francis Gibson (Ci.)
Maltby, Quintin Johnstone (Mi.)
Manny, David Emilien (Ci.)
Meek, Victor Maitland (Mi.)
Menzies, John Whyte (Ci.)
Morison, Hugh Gordon (Mi.)
Narraway, Athos Maxwell (Ci.)
Needham, Robert James (El.)
Openshaw, John Edward (Ci.)
Pearce, Seabury Kains (Mi.)
Popham, John Francis Watson (Ry.)
Powis, Gordon Douglas (El.)
Price, Thomas Ernest (Ci.)
Reid, Archibald Cumberland (Ar.)
Reid, Rupert Haddington (El.)
Robertson, William Scott (Ci.)
Rutherford, John Reginald (Mi.)
Ryley, Alfred St. Clair (Ci.)
Scott, Oswald Hayward (Ci.)
Scovil, Harry Hutton (Ci.)
Shanks, Daniel Albert (El.)
Simpson, Alan Cradock, B.A. (Mi.)
Slavin, Reginald Victor (El.)
Slingsby, Henry (Ry.)
Smith, Albert Wilmot (Ci.)
Sproule, Stanley Macquana (Ci.)
Stackhouse, Charles Wellington (Me.)
Stark, Robert Sam (Ci.)
Stewart, Robert Bruce (Ci.)
Strong, Horace R. F. (Mi.)
Sweetnam, Samuel (El.)
Timberlake, John Newton (Ry.)
Trench, Alfred Saward Chenevix (Ci.)
vonPozer, Charles Henry (Ci.)
Vroom, Harold Heard (El.)
Williams, Francis George Maxwell (Meta.)
Wilson, Alexander (Me.)
Wyman, John Kirby (Ci.)
Young, Alexander Arthur (Ci.)
Younger, Harry Robert (Ci.)

PASSED FOR THE DEGREE OF BACHELOR OF ARCHITECTURE.

(In alphabetical order.)

Blanchard, Edward Stirling
Kingston, John Lyndhurst
McDougall, James Cecil
Paine, Arthur James Carman

PASSED FOR THE DEGREE OF BACHELOR OF CIVIL LAW.

(*In alphabetical order.*)

Alexander, Maurice, B.A. (Cape of Good Hope.)
Belanger, George, B.A. (Laval.)
Cameron, Alexander George
Cousins, George Vipond, M.A.
Cushing, Dougall, B.A.
Goodstone, Isidore Albert
Heward, Chilion Graves, B.A.
Jamieson, John Stewart, M.A.
MacCallum, Orick Burroughs, B.A.
Millman, Lazarus
Papineau, Talbot Mercer, B.A.
Penny, Edward Goff Trevor, B.A.
Tetreau, Maurice Frederick, B.L. (Laval.)
Tulk, Albert Edward

PASSED FOR THE DEGREE OF DOCTOR OF MEDICINE AND MASTER OF SURGERY.

Abbott, Maude E. Seymour, M.D. (Bishop's)—Hon.
Allen, John Anson Lorne.
Allen, Kenneth Watson.
Allingham, John Heber, B.A.
Amant, Harry.
Anderson, William Marcus.
Baldwin, William James.
Benner, Frank Aubrey.
Black, Vaughan Elderkin, B.A.
Booth, Gordon Elliott.
Boudreau, Frank George.
Brown, David MacCulloch.
Burton, William Elliott.
Carruthers, Robert Sim Patterson.
Champion, Benjamin Hiram.
Chisholm, Hugh Gillis, B.A.
Crease, Arthur Lionel.
Culver, Cyrus Whitney.
Dakin, Warren Augustus, M.A.
Doyle, Philip Ernest.
Dunbar, David Archibald.
Dunnet, Henry Watters.
Elliott, Robert, B.A.
Ewert, Carl, B.A.
Fairfield, William E. (ad eundem).
Fraser, John Roger.
Fraser, Wilbert Grieve.
Froomess, Leo E.
Gallagher, Joseph Bernard, B.A.
Gillis, Stephen Herbert.
Gilmour, William Norman.

Graves Charles Allan.
Hepburn, Howard Havelock.
Hepburn, William Graham.
Herbert, Thomas Archibald.
Hicks, Elbert Roy, B.A.
Hutchinson, George Wellington.
Keay, Arnold.
Lavers, Percy Lorne.
Lightstone, Hyman (ad eundem).
Locke, J. Allan.
Lockwood, Ambrose Lorne.
Logie, H. Burton, B.A.
McAlister, William Jonas.
Macaulay, Albert Edward.
McBurney, Albert, B.A.
McCracken, William Alexander.
McEachern, Malcolm Thomas.
Mackintosh, Arthur Emerson.
MacMillan, Hugh.
MacMillan, Stanley.
McNaughton, Murray William Armour.
MacNeill, Alvin Lennox Hodge.
MacPhee, John Adolphus, B.A.
Macrae, Douglas Dalzell (ad eundem)
Malcolm, Robert Bruce.
Marchant, Harold Bertram.
Moodie, Alex. Russell.
Morse, David Garnet.
Mundie, Gordon Stewart, B.A.
O'Brien, John Francis.
O'Callaghan, Robert Hay Lismore.
Outwater, Stewart Wilson, (ad eundem).
Park, John Edmistone.
Patten, Lee Alfred.
Peabody, Harry Sherman.
Peele, Sidney Beresford.
Piper, John Obed, A.B.
Raphael, Howard MacLaren.
Reed, Everett Hobart.
Richardson, James Wilson.
Robinson, Thomas Arnold.
Scott, George Orville.
Shephard, Harold Middleton.
Shillington, Richard Newton Wellington.
Sihler, George Albert.
Sinclair, Fred Douglas, B.A.
Speer, Robert Brandon.
Stewart, Archibald.
Strudwick, Henry Thompson.
Turner, John Smicle.
Walker, Edmund Eugene Watlington.
Wilson, George Thomas, B.A.
Youland, William Edward, A.B.

PASSED FOR THE DEGREE OF DOCTOR IN DENTAL SCIENCE.

Hawkshaw, Edward Parry.
McDonell, Donald Samuel Howard.

ADMITTED TO THE DEGREE OF MASTER OF ARTS

Hatcher, Albert George, B.A.
Huntley, Herbert Wellington, B.A.
Huxtable, Maggie, B.A.
King, Lucile Mabel, B.A.
McDonald, Jessie, B.A.
Mackenzie, John Malcolm, B.A.
Maclean, Herbert Bayne, B.A.
Macnaughton, Ariel Marguerite, B.A.
McNeil, John Thomas, B.A.
Smillie, Eleanor Arma, B.A.

ADMITTED TO THE DEGREE OF MASTER OF SCIENCE.

Arkley, Lorne Mackenzie, B.Sc.
Bates, Frederick W., B.A.
Carmichael, Henry Graham, B.Sc.
Cheesbrough, Arthur Gordon, B.Sc. Chem
Dickieson, Arthur Logan, B.Sc. El.
Fox, Charles Harry, B.Sc. Civ.
Hayes, Albert Orion, B.Sc.
Meldrum, William Buell, B.A.
O'Neill, John Johnson, B.Sc. Mi.
Richardson, Lorne N., M.A.
Shaw, Albert Norman, B.A.
Sullivan, Charles Thompson, B.A.
Weir, Douglas, B.Sc.
Yuill, Harry Hogg, B.Sc. Mi.

ADMITTED TO THE DEGREE OF DOCTOR OF PHILOSOPHY.

Joseph Austen Bancroft, M.A.
Simon Kirsch, M.A.
Annie Louise Macleod, M.Sc.

ADMITTED TO THE DEGREE OF DOCTOR OF SCIENCE.

Louis Anthyme Herdt, Ma.E., Professor of Electrical Engineering, McGill University.

ADMITTED TO THE DEGREE OF DOCTOR OF CIVIL LAW.

Hon. John Dunlop, B.C.L., Judge of the Superior Court, Montreal.
Hon. Paul Gédeon Martineau, B.C.L., Judge of the Superior Court, Montreal.

ADMITTED TO THE DEGREES OF DOCTOR OF LAWS.

Hon. Raoul Dandurand, Ex-Speaker and member of the Senate of Canada.

Admiral Sir Archibald Lucius Douglas, G.C.V.O.
Edward Black Greenshields, B.A., Honorary Treasurer, McGill University, Montreal.
Hormisdas Laporte, Ex-Mayor of the City of Montreal.
Rev. Herbert Symonds, M.A., D.D., Vicar Christ Church Cathedral, Montreal.

HONORARY LL.D. DEGREES GRANTED SINCE 1890.

1890.—The Right Hon. Frederick Arthur Stanley, Earl of Derby, G.C.B., P.C.

1891.—George Mercer Dawson, LL.D. (Queen's), D.Sc., F.R.S.
Rev. Moses Harvey.

1892.—Baron Frederick Von Muller, K.C.M.G., F.R.S.

1893.—Henry T. Bovey, M.A. D.C.L., F.R.S.

1894.—Right Hon. John Campbell Hamilton Gordon, Earl of Aberdeen, M.A., G.C.M.G.
Francis Reuleaux.

1895.—Robert Craik, M.D.
William Osler, M.D., LL.D. (Edin. & Harvard).

1896.—None.

1897.—Henry Barnes, M.D., M.R.C.S.
Sir B. Walter Foster, M.D., D.C.L., F.R.C.P.
Sir Michael Foster, K.C.B., M.D., D.C.L., F.R.S.
W. H. Gaskell, M.A., M.D.
Christopher Heath, F.R.C.S.
Right Hon. Lord Lister, Bart., M.D., D.C.L., F.R.S.
Alexander Macalister, M.A., M.D., D.Sc., F.R.S.
Charles Richet.
Robert Saundby, M.D., F.R.S.P.
Sir William Turner, M.D., LL.D., F.R.S.
Claud G. Wheelhouse, F.R.C.S.

1898.—Hugh Longbourne Callendar, M.A., F.R.S.
Right Hon. Gilbert John Elliot, Earl of Minto, G.C.M.G.
Right Hon. Baron Herschell, P.C., G.C.B.
Right Hon. Sir Wilfrid Laurier, B.C.L., G.C.M.G., P.C.

1899.—James Douglas, B.A.
Bernard J. Harrington, M.A., Ph.D., F.G.S., F.R.S.C.
Rudyard Kipling.

1900.—George Frederick Barker.
Captain Alfred T. Mahan.
Joseph Frederick Whiteaves, F.R.S.C.

1901.—H. R. H. The Prince of Wales, K.G.
H. R. H. The Princess of Wales.

1902.—None.

1903.—Sir Alexander Campbell MacKenzie, Mus. Doc.
Charles Ebenezer Moyse, B.A. (London).
George Robert Parkin, M.A., LL.D. (Univ. of N.B.)

1904.—His Excellency Jean Adrien Antoine Jules Jusserand.
Hon. Mr. Justice William Warren Lynch, D.C.L.
Right Hon. John Morley, M.A.
Rev. Elson I. Rexford, M.A.
Edward L. Trudeau, M.Sc., M.D.
Edward Weston.

1905.—Albert Henry George Grey, Earl Grey & Viscount Howick, G.C.M.G., LL.M.
Thomas Coltrin Keefer, C.M.G.

1906.—Rev. James Barclay, M.A., D.D.
Andrew Carnegie, LL.D. (Glasgow & St. Andrews).
Hon. William Stevens Fielding.
Donald Macalister, M.A., M.D., D.C.L.

1907.—Alfred Kleczkowski.
Frederich Müller, M.D.
Ernest Rutherford, M.A., D.Sc., F.R.S.
Thomas Clifford Allbutt, M.D., F.R.S.
Sir William Broadbent, Bart., M.D., K.C.V.O., F.R.S.
Sir Thomas Barlow, M.D., K.C.V.O., F.R.S.
Sir Victor Alexander Haden Horsley, M.D., F.R.S.

1908.—Right Hon. James Bryce, D.C.L., P.C.
Sir Caspar Purdon Clarke, Kt., C.V.O.
Henry Marshall Tory, D.Sc.
E. A. Schäfer, D.Sc.
Right Hon. Viscount Milner.

1909.—Rev. William Sullivan Barnes.
John Cox, M.A., LL.D.
Nathan Fellowes Dupuis, M.A., F.R.S.C.
Martin Joseph Griffin.
Ernest William MacBride, M.A., D.Sc., F.R.S.
Duncan McEachran, D.V.S., F.R.S., V.S.
Gifford Pinchot.
James William Robertson, C.M.G.
James Earl Russell, Ph.D.
Hon. James Wilson.

1910.—Hon. Raoul Dandurand.
Sir Archibald Lucius Douglas, G.C.V.O., K.C.B.
Edward Black Greenshields, B.A.
Hormisdas Laporte.
Rev. Herbert Symonds, M.A., D.D.

SCHOLARSHIPS AND EXHIBITIONS.

SESSION 1909-1910.

FACULTY OF ARTS.

I. Third Year Scholarships and Exhibitions.

(1). Scholarships. (Tenable for two years).

NAMES OF SCHOLARS.	SUBJECTS OF EXAMINATION.	ANNUAL VALUE.
Dewey, Alex. G.	English and Latin	$150.00
Grimes, Evie M.	Latin and French	150.00
Schafheitlin, Anna	French and German	150.00
Paterson-Smyth, Marjorie	Mathematics and Physics	150.00
Maas, Otto	Mathematics and Physics	150.00
Dowd, Norman S.	Economics	100.00

(2). Exhibitions. (Tenable for one year).

NAMES OF EXHIBITIONERS	SUBJECTS OF EXAMINATION.	ANNUAL VALUE
Bridges, James W.	Philosophy	$150.00
Lochhead, Allan G.	Biology	150.00
MacLean, A. R. M.	Chemistry and Physics	150.00
Angus, Henry F.	Latin and French	150.00

Hannah Willard Lyman Exhibition.

NAME OF EXHIBITIONER.	SUBJECT OF EXAMINATION.	VALUE.
Murchison, Hazel	English and Latin	$ 50.00

II. Second Year Exhibitions and Bursaries.

(1). Exhibitions. (Tenable for one year).

NAMES OF EXHIBITIONERS.	SUBJECTS OF EXAMINATION.	VALUE.
Murray, W. E. G.	English, Latin ; Greek (minor)	$150.00
Cockfield, W. E.	English, Latin ; Physics (minor)	150.00
Manny, Louise	English, French ; Physics (minor)	100.00
Stewart, Mary A. R.	French, German ; English (minor)	100.00

(2). Bursaries.

Names.	Subjects of Examination.	Value.
Freeman, Amy F.	English, Latin; Physics (minor)	$ 50.00
Longworth, Ethel.	English, Latin; Mathematics	50.00

III. First Year Scholarships, Exhibitions and Bursaries.

1. Scholarships. (Tenable for two years).

Names of Scholars.	Annual Value
Robinson, Joan, (Victoria High School), Victoria, B.C.	$150.00
Bruneau, Sydney Aimé, (Montreal High School), Montreal.	150.00
Lariviere, Rose de Lima, (Westmount Academy), Montreal.	150.00

(2). Exhibitions (Tenable for one year).

Names of Exhibitioners.	Values.
Stewart, John Gordon, (Montreal High Scohol), Montreal.	$150.00
Macnaughton, Ian R. R., (Montreal High School), Montreal.	150.00
*Fritz, Clara W., (St. John High School), St. John West, N.B.	200.00
Mount, Winnifred B., (Westmount Academy), Westmount.	100.00
Silver, Benjamin, (Montreal High School), Montreal.	100.00
Corbett, Percy Ellwood, (Huntingdon Academy), Redvers, Sask.	100.00
Duff., Dorothy, (Trafalgar Institute), Montreal.	100.00
Dewey, George Finlay, (Montreal High School), Montreal.	100.00
McGarry, Allan Arthur (Montreal High School), Montreal.	100.00
Morison, Charles Keith, (Montreal High School), Ormstown, Que.	100.00
*Reinhardt, Olive Augusta, (Trafalgar Institute), Peterboro, Ont.	100.00

* Conditional on residence in the Royal Victoria College.

REGISTER OF STUDENTS.

SESSION 1909-1910.

FACULTY OF ARTS

FIRST YEAR.

(*McGill College*).

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
*(2) Allan, George R.	Crieff, Scotland	Presb. Coll., Montreal.
Allingham, Richard R.	Woodstock, N.B.	Woodstock High School.
Atkins, Basil E.	Vancouver, B.C.	Vancouver High School.
*Barron, Robert	Franklin Centre, P.Q.	Belfast, Ireland.
*Beaupré, Gaston A.	Quebec, P. Q.	Quebec Seminary.
*Bell, G. Gordon	Ottawa, Ont.	Private Tuition.
Bieler, Jean H	Westmount	Presb. Coll. Montreal.
*Bradbury, William J.	Bay Roberts, Nfld.	Bay Roberts Academy.
Bridgman, Randolph H.	Montreal	Montreal High School.
*Brown, Charles H.	Kingston-upon-Hull	Eng. Hull Grammar Sch.
Brown, F. Ronald	Danville, P. Q.	Danville Academy.
*Brown, Thomas A.	Victoria, B. C.	Victoria College.
Brown, William P.	Montreal	Montreal High School.
Bruneau, Aimé Sydney.	Montreal	Montreal High School.
*Burgess, Frank	Union, Ont.	
*Burton, Garland G.	Greenspond, Nfld.	Greenspond Superior Sch.
*Caldwell, Arthur B.	Barrie, Ont.	Barrie Collegiate Inst.
*Caldwell, Thomas R.	Lanark, Ont.	Ashbury College, Ottawa.
Chapin, Claude E	Philadelphia, N.Y.	Philadelphia High School.
Charleson, Donald R	Vancouver, B.C.	Vancouver High School.
*(3) Christie, A. Stanley	Apple Hill, Ont.	
Church, Cyril K.	Aylmer, P. Q	Lachute Academy.
*(2) Cohen, Joseph	Montreal	Montreal High School.
Common, Frank	Montreal	Montreal High School.
Conmee, Arthur B.	Port Arthur, Ont.	Ottawa College.
Corbett, Percy E.	Redvers, Sask	Huntingdon Academy.
†Corley, J. Kevin	Montreal	Shortell's Academy.
*Darling, Morton	Westmount	Westmount Academy.
†Davis, James F.	Montreal	Private Tuition.
Dewey, George F.	Montreal	Montreal High School.
†Duggan, Kenneth L.	Montreal	St. Alban's Sch. Brockv'l.
*Duval, J. Maurice	Westmount	
*Ellis, William J.	Brome, P. Q.	Knowlton Academy.
*Fairgrieve, Robert	London, Eng.	
*Farrell, Ralph G.	Montreal	Loyola College, Montreal.

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*Partial Student. †Conditioned Student.

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
Farthing, Hugh C	Montreal	Collegiate Inst. Kingston, Ont.
Fisher, Arthur G.	Montreal	Montreal High School.
*(2)Fiske, Hollis J. M.	Florenceville, N.B.	Florenceville Cons. Sch.
*Fulton, James	Millisle, Ireland	Presbyterian Coll. Mont'l.
Gall, George L.	Lachute, P. Q	Lachute Academy.
*Gerin-Lajoie, Henri	Montreal	Mt. St. Louis College.
Goldbloom, Alton	Winnipeg, Man	Manitoba Coll. Winnipeg.
*Graham, Cyril C	Ottawa, Ont.	Ottawa Collegiate Inst.
Greig, Donald	Breakeyville, P. Q.	High School, Quebec.
*Harris, Pasker, B	Gore'sLanding, Ont.	Trinity Coll. Sch., Pt. Hope
Heaton, John C.	Westmount	Montreal High School.
Henry, H. Donald	Montreal	Montreal High School.
Hodgson, Edwin	Hudson Heights, P.Q.	Montreal High School.
Honey, Howard P	Abbotsford, P.Q.	Lachute Academy.
§Innes, Campbell	Teeswater, Ont.	Canadian Corr'spdnc. Col.
*(2)Innis, Thomas H.	Montreal	Diocesan Theo. College.
Jeakins, John W.	Waterloo, P.Q.	Waterloo Academy.
*Kerr, Hugh	Montreal	
*Kirkpatrick, Robert A	Ferguson, B.C.	Columbian Coll. New Westminster.
*Ladd, Guy B.	Brome, P.Q.	Sutton Academy.
Leavitt, Joseph	Montreal	Montreal High School
LeBel, Joseph O.	Tetreaultville, P.Q.	Pt. Aux Trembles Sch.
Lofthouse, William	Montreal	Diocesan Theo. College.
Lovett, Eric A.	Montreal	Collegiate Sch. Windsor, N.S.
Lowry, Wilbur C.	Leeds Village, P. Q.	Stanstead College.
Macaulay, Douglas L.	Westmount	Westmount Academy.
McClintock, G. Arthur	St. Andrews East, Que.	Lachute Academy.
McConnell, William F	Ballynahinch, Ireland	Presby. College, Montreal
†McCormack, George J.	London, Eng.	Diocesan Theo. College.
†McCracken, Merrick R.	Danville, P.Q.	Danville Academy.
*McCuaig, Clarence N	Montreal	RidleyColl. St.Catharines, Ont..
McGarry, Allan A	Montreal	Montreal High School.
McInnes, T. R. Loftus	Vancouver, B.C.	McGill Univ. Coll. of B.C.
†McIntosh, W. A. Stanley	Apple Hill, Ont.	Cornwall High School.
*(2)MacLeod, Donald	Ripley, Ont	Presby. College, Montreal.
McLeod, William M.	Montreal	Montreal High School.
McMeekin, Ernest J.	Stonefield, P. Q	French Methodist Inst.
Macnaughton, Ian R. R.	Montreal	Montreal High School.
Matheson, Homer L.	Summerstown, Ont.	Cornwall High School.
*Mathews, Albert	Caughnawaga, P.Q.	
Maynard, Ernest E.	Lowell, Mass	Feller Inst., Grand Ligne, Que.
*(2)Mick, Henry	Micksburg, Ont.	
*Mifflen, Sydney C.	Greenspond, Nfld.	Bishop Field Coll., Nfld.
Miller, Iveson A.	Island Brook, P. Q.	Cookshire Academy.
Millman, Aaron	Montreal	Private Tuition.

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*Partial Student. †Conditioned Student. §Double Course Student.

Name.	Home Address.	Where Last Educated.
†Molleur, Charles A.	Montreal	Feller Inst., Grand Ligne, Que.
*Monat, Charles O.	Montreal	St. Laurent College.
†Morgan, Henry W.	Maisonneuve	Montreal High School.
Morison, Charles K.	Ormstown, P. Q.	Montreal High School.
*Morris, F. Jarvis.	St. Regis Falls, N.Y.	St. Regis Falls High Sch.
*Naughton, M. William.	Ballyconneely, Ire.	Diocesan Theo. College.
*Nehin, Frank O'B.	Montreal	St. Patrick's School.
Nicholson, William C.	Westmount	Westmount Academy.
*Osborne, James A.	Belfast, Ireland.	Diocesan Theo. College.
Parkes, Alfred J. R.	Sherbrooke, P. Q.	Sherbrooke High School.
Pedley, Frank G.	Montreal	Montreal High School.
Penny, W. Stewart.	Montreal.	Montreal High School.
*Pickel, F. Eric	Sweetsburg, P. Q.	Cowansville Academy.
*Power, Edmunde de G.	Ottawa, Ont.	"Studyvera."
*(2)(3)Proctor, Samuel J.	Liverpool, Eng.	Presbyterian College.
*(3)Raynes, Walter L.	St. John, N.B.	
†Ribadeneyra, Antonio	Guayaquil, S.A.	Loyola College, Montreal.
Rivard, Emile A.	Duclos, P.Q.	Pointe-aux-Trembles Schs.
†Sacksner, Moses H.	Montreal.	
*Samson, Percy V.	London, Eng.	
†Saunders, Frederic W.	Bedford, P. Q.	Pointe-aux-Trembles Sc.
Scott, Stanley L.	Sawyerville, P.Q.	Cookshire Academy.
Shapiro, Sheppard.	Montreal.	Montreal High School.
Silver, Benjamin.	Montreal.	Montreal High School
Smith, Egerton Elliott.	Beebe, P.Q.	Stanstead Wesleyan Coll.
*Smith, Robert S.	Lavenham, Eng.	
Stevenson, Reginald B.	Shoal Lake, Man.	Diocesan Theo. College.
†Stevenson, Reginald C.	Montreal.	St. John's School.
Stewart, Clarence J.	Cazaville, P.Q.	Huntingdon, Academy.
Stewart, John G.	Montreal	Montreal.
*Stewart, Richard N.	Fraserville, Ont.	
Struthers, R. Rolf.	Sudbury, Ont.	Sudbury High School.
Stuart, Lorne J.	Cainsville, Ont.	Brantford Coll. Inst.
Sutherland, Walter S.	Valleyfield, P.Q.	Gault Institute.
*(2)Thomson, Alex. K.	Coatbridge, Scot.	Presbyterian College
*Timmins, Jules R.	Haileybury, Ont.	Meisterschaft Sch. Toronto
*Waddington, Bertie	St. Nelson, Lanc., Eng.	
†Wall, A. Fraser.	Montreal.	Shortell's Academy
†Walley, Norman E.	Sherbrooke, P.Q.	Sherbrooke Academy.
Walsh, W. Allen.	Montreal.	McGill Normal School.
Weinfield, Abraham.	Montreal.	Montreal High School.
*Wilson, E. William.	Westmount.	Montreal High School.
Wilson, William G. A.	Shawville, P.Q.	Shawville Academy.
*(2)Wolland, Edwin J.	Montreal	Presbyterian College.
(Royal Victoria College)		
*Apotheker, Ida	Montreal.	McGill Normal School.
Armstrong, Jean D.	Ottawa, Ont.	Ottawa Ladies College.
*Baillie, E. Olive.	Montreal	Havergal Coll., Toronto.

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*Partial Student. † Conditioned Student.

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
Cameron, Anne Watson	Sydney, N.S.	Trafalgar Inst., Montreal.
Cameron, Ethel K.	Winchester, Ont.	Ont. Ladies' Coll., Whitby
Chaffey, Harriet	Vancouver, B.C.	Vancouver High School.
*Cream, Louisa M. H.	Montreal	Trafalgar Institute.
Duff, Dorothy	Montreal	Trafalgar Institute.
*Fortier, Evangeline	Montreal	Montreal High School.
Fritz, Clara W.	St. John W., N.B.	St. John High School.
Gilley, Vera C.	New Westminster.	New Westminster High Sch.
Hecht, Amelia	Westport, Ont	Ontario Ladies' Coll., Whitby.
LaRivière, Rose de L.	Montreal	Westmount Academy.
Leonowens, Anna H.	Montreal	Trafalgar Institute.
*Lighthall, Alice M. S.	Westmount	Miss Gairdner's School.
*Livingstone, Leba.	Montreal	Com. & Tech. High Sch.
McGillis, Harriet Ida	Westmount	Private Tuition.
†McGillis, Sara Beatrice	Westmount	Private Tuition.
McIlwraith, Dorothy S.	Hamilton, Ont.	Alexandra Sch., Hamilton.
*Mackay, Joan C.	Renfrew, Ont.	
Maclaren, Jessie R.	Buckingham, P.Q.	Private Tuition.
MacSween, Florence R.	Montreal	Montreal High School.
†Millman, Bena	Montreal	Montreal High School.
Morison, Margaret I.	Ormstown, P.Q.	Trafalgar Inst., Montreal.
Mount, Winnifred B.	Westmount	Westmount Academy.
*Pyke, Isobel M.	Westmount	Westmount Academy.
Reinhardt, Olive A.	Peterboro, Ont.	Trafalgar Inst., Montreal
Robinson, Jean	Victoria, B.C.	Victoria High School.
†Ross, Leslie	Richmond, P.Q.	St. Francis High School.
Shanly, Eleanor	Montreal	Montreal High School.
Shearing, Helen A.	Montreal	Montreal High School.
Trapp, Ethelyn	New Westminster, B.C.	"All Hallows," Yale, B.C.
*(2)(3)Wadleigh, Ruby R.	Ulverton, P.Q.	
*Waterson, Grace	Westmount	Westmount Academy.
Wilder, Kathleen M.	Westmount	Montreal High School.
†Williams, Hilda C.	Buckingham, P.Q.	Ont. Ladies, Coll., Whitby.

SECOND YEAR.

McGill College.

NAME.	HOME ADDRESS.
Allan, James T	Kinnear's Mills, P.Q.
*Allnutt, Frank B.	Montreal.
Babcock, Charles E.	Brockville, Ont.
†Barlow, Arthur F.	Ottawa, Ont.
*Berman, Paul L.	Montreal.
*Bolingbroke, Harold	Montreal.

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*Partial Student. †Conditioned Student.

NAME.	HOME ADDRESS.
*(3)Boucher, Joseph S.	Campbellton, N.B.
Budyk, Joseph	Montreal.
†Chenier, Armand	Edmonton, Alta.
Cockfield, William E.	Montreal.
Couture, Armand P	Montreal.
Davidson, Wray L.	Princeton, Ont.
Dean, Joseph R.	Clarenceville, P.Q.
*Drysdale, Andrew	Cambuslang, Scot.
French, Bertram St. G.	Montreal
Goldblatt, Harry	Montreal.
‡Green, Robert H.	Victoria, B.C.
Gronin, Joseph	Montreal.
‡Grossman, Max M.	Vancouver, B.C.
Hatcher, Henry G.	Catalina, Nfld.
*Howat, Alexander G.	Verdun, Que.
‡Hughes, Wilfred P.	Kemptville, Ont.
James, Clarke B.	Perth, Ont.
Johnson, Herbert L	Montreal.
Kert, Isaac	Montreal.
Kneeland, Stanley F. L.	Montreal.
Lindsay, William	Montreal.
‡Lumsden, Walter G.	Hamilton, Ont.
*McBain, Alexander R.	Meadowville Stn., N.S.
McInnis, John L.	Thamesville, Ont.
McVittie, Thomas J.	Blackpool, Lancashire, E.
*(3)Martin, J. Herman	Berlin, Ont.
Mathewson, Arthur	Montreal.
*Mitchell, Ernest D.	Swindon, Eng.
Muhlstock, Abraham W.	Quebec, P.Q.
Murray, W. E. Gladstone	Peachland, B.C.
*Naylor, R. Kenneth, B.A.	Farnham, Que.
*Page, Richard E.	Montreal.
Pearse, Walter J.	Kamloops, B.C.
*Pedley, Hilton S.	Maebashi, Joshu, Japan.
Percival, Walter	Liverpool, Eng.
‡Quigley, William	Snake River, Ont.
*Rayner, Walter J.	Montreal.
‡Roback, Abraham A.	Montreal.
Robinson, Mahlon I.	Winchester Springs, Ont.
Smith, Harry L.	Charlottetown, P.E.I.
‡Stalker, Archibald	Dutton, Ont.
‡Thomson, Herbert F.	Montreal.
*(3)Treanor, George G.	Streetsville, Ont.
‡Turner, William H.	Ottawa, Ont.
‡Walker, Herbert F.	Montreal.
Walker, Miles G.	Lachute, P.Q
Wilkes, A. Burton	Brantford, Ont.
Young, William H	Montreal.
Youngheart, Samuel, O.	Montreal.

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*Partial Student. †Conditioned Student. ‡Conditioned Undergraduate.

NAME.	HOME ADDRESS.
(Royal Victoria College)	
*Armour, Helen M.	Westmount.
*Atkin, Silvia L.D.	Rock Ferry, Eng.
Bennett, Annie J.	Montreal.
Boright, Beatrice M.	Mansonville, P.Q.
Braeuer, M. Alexandra McL.	Montreal.
Brown, Vera L.	Richmond Hill, N.Y
Cameron, Helen M.	Winchester, Ont.
Campbell, Lillian M	Ottawa, Ont.
‡Duguid, L. Amelia	Montreal.
Dumaresq, Edna, I.	Montreal.
Freeman, Amy F.	Milton, N.S.
‡Going, M. Chase	Montreal.
‡Hadrill, Beatrice M.	Montreal.
Hall, Constance M.	Calgary, Alta.
*Harrington, C. Eva	Montreal.
*Harris, Marguerite, V.	Montreal.
†Henry, Marguerite H.	Montreal.
Lawrence, Kate W.	Sherboroke, P.Q.
Longworth, Ethel C.	Charlottetown, P.E.I.
*McLachlan, Inez, W.	Montreal.
McLaurin, Bernice M	Ellsworth, Kan.
McLaurin, Clarissa E.	Montreal.
Manny, Louise	Newcastle, N.B.
Mathewson, Winifred	Montreal.
Oughtred, Eleanor	Montreal.
Pennington, Marg. H.	Montreal .
Ross, Beatrice M.	Montreal.
Scott, Ruby G.	Montreal.
Stewart, Mary A. R.	Montreal.
Stewart, Mary I.	Summerside, P.E.I.
Younger, Lilian F.,	Montreal.
Younger, Mildred R.	Montreal.

THIRD YEAR.

(McGill College.)

NAME.	HOME ADDRESS.
*Abbott-Smith, Rev. George	Montreal.
Angus, Henry F	Montreal.
§Argue, Alan F.	Carp, Ont.
Armstrong, T. Edgar	Montreal.
Beckwith, Harold A.	Victoria, B.C.
Bissett, John E.	Winnipeg, Man.
Bridges, James W.	Cascumpec, P.E.I.
Cherry, William M.	Toledo, Ohio.
Clearihue, Joseph B.	Victoria, B.C.
Cook, Geoffrey H	Quebec, P.Q.
Creaghan, T. Cyril	Newcastle, N.B.
Cunningham, Stanley H.	Montreal.

*Partial Student. †Conditioned Student.
‡Conditioned Undergraduate. §Double Course Student.

NAME	HOME ADDRESS.
Currie, George S.	Perth, Ont.
Davidson, Roy A	St. John, N.B.
Dewey, Alexander G	Montreal.
Dixon, Shirley G.	Montreal.
Donald, James R	Montreal.
Dowd, Norman S	Ottawa, Ont.
Eberts, Harold F. H.	Victoria, B.C.
Fletcher, Gilbert H.	Melbourne, Ont,
*(4)Fresque, Herbert,	Ottawa, Ont.
§‡Gardiner, Egbert	London, Ont.
Gillmor, Dan. P.	St. George, N.B.
*Gouin, Abraham,	Hull, Que.
Hannah, George K.	Montreal.
Heney, Theodore B	Montreal.
Herschorn, Hyman E.	Montreal.
Heurtley, Ernest S.	Oxford, Eng.
Irving, W. Gordon.	Vernon, P.E.I.
*Jacobs, Joseph H.	Caughnawaga, P.Q.
Kerry, John	Montreal.
King, A. Nelson	Victoria, B. C.
Knowling, Albert J.	Vancouver, B.C.
Larivière, Henry A.	Bethany, P. Q.
Livinson, A. Jacob.	Montreal.
Lochhead, Allan G.	St. Anne de Bellevue, P.Q.
*McCuaig, Donald A.	Laggan, Ont.
McGoun, A. Forster	Westmount.
*McGoun, George G.	Westmount.
MacLean, A. Reginald M.	Woodstock, N.B.
Maass, Otto.	Montreal.
Martin, Arthur J.	Ottawa, Ont.
‡Mewburn, Frank H. H.	Lethbridge, Alta.
‡Millman, Lazarus	Montreal.
Morris, J. Frederick.	Bristol, P.Q.
Morris, Robert	Manchester, Eng.
Moyse, Robert E.	Montreal.
Newcombe, Edmund F	Ottawa, Ont.
*Nicholson, William G	Montreal.
*Pelletier, Antoine	Montreal.
*Riley, C. E., B.A.	Montreal.
§Roberts, Lawrence H.	Ottawa East, Ont.
Scott, Arthur A.	Montreal.
*Smith, Harold F.	Montreal.
Tannenbaum, Laurence	Montreal.
Townsend, C. Louis, B.A.	Montreal.
Wanklyn, Andrew A.	Montreal.
Warburton, Hugh C	Charlottetown, P.E.I.
Weir, George.	Saskatoon, Sask.

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*Partial Student. ‡Conditioned Undergraduate. §Double Course Student.

NAME.	HOME ADDRESS.
(Royal Victoria College.)	
*Bernstein, Minnie	Montreal.
‡Browne, A. Gladys	Montreal.
*Browne, M. Myrtle	Montreal.
Chandler, Rena, F.F	Colquitz, B.C.
Craig, Evelyn	Montreal.
*Ellison, Ellen F	Vernon, B.C.
Ellison, Myra K	Vernon, B.C.
Greer, Jemima L	Westmount.
Grimes, Evie M	Montreal.
Hammond, Doris J. S	Montreal.
Hayden, Mable G	Westmount.
Hill, Anna K	Montreal.
Howell, Lucy M	Vancouver, B. C.
Hulburd, Ethel E	East Farnham, P.Q.
*Loud, Hilda C	Montreal.
‡MacAdam, Hazel C	Westmount.
MacDonald, Susan V	Montreal.
*MacEwen, Violet M	Westmount.
Macnaughton, Jean L. M	Victoria, B.C.
MacQueen, Emma H	New Glasgow, N.S.
Murchison, Hazel I	Montreal.
‡Olmstead, Helen F	Sutton, P.Q.
Paterson, Edith L	Vancouver, B.C.
Reid, Florence C	Westmount, P.Q.
Robertson, Mildred H	Westmount.
Schafheitlin, Anna	Montreal.
Smyth, Marjorie P	Montreal.
VanVliet, Leonora M	Lacolle, P.Q.
Williams, Marion F	Cowansville, P.Q.
Wilson, Winifred E	Montreal.
FOURTH YEAR.	
(McGill College.)	
§Armstrong, John Douglas	Ottawa, Ont.
§Bruneau, I. Edgar	Montreal.
Cockfield, Harry R	Montreal.
Couture, R Papineau	Montreal.
Cushing, Charles, Jr	Montreal.
de Sola, Bram C	Montreal.
§Digby, Reginald W	Brantford, Ont.
§Douglas, H. Townley	Montreal.
Elder, Aubrey H	Westmount.
Gordon, J. Thom	Grantley, Ont.
Hutchinson, Samuel A	Outremont.
§Kolber, Joseph	Montreal.
Macdonald, Alex. B	Athelstan, P.Q.
§McGannon, Edward M	Brockville, Ont.
McMurtry, Alex. O	Montreal.
Macnaughton, Gordon F	Montreal.

*Partial Student. ‡Conditioned Undergraduate. §Double Course Student.

NAME.	HOME ADDRESS.
Mabon, J. Bertram	Montreal.
Manning, Viril Z.	Vancouver, B.C.
Mariotti, Humbert C. G.	Montreal.
Merrill, Arthur J.	Montreal.
Phipps, Roy G.	Vancouver, B.C.
Powles, Percival S. C.	Montreal.
Prentice, Norman A.	Montreal.
§Ramsay, Irving D.	Waskada, Man.
Reilly, J. Clark.	Montreal.
§Rennoldson, David B.	Montreal.
Robinson, Bernard S.	Strathroy, Ont
§Ross, S. Graham.	Montreal.
Runnells, George W.	Granby, P.Q.
Skaling, Arthur C.	Vancouver, B.C.
Smyth, Charles P.	Montreal.
Solomon, Edward.	Montreal.
Stanton, Frank H.	Moncton, N.B.
Sutherland, Francis C.	Richmond, P.Q.
Thorne, Oliver.	Montreal.
Tippet, Richard S.	Westmount.
Trainor, Owen P	Charlottetown, P.E.I
*Tulk, A. Edward.	Vancouver, B.C.
Wilson, Percy D.	Ottawa, Ont
Wood, Frederic G. C.	Victoria, B.C.

(Royal Victoria College.)

Badgley, E. Ruth.	Montreal.
Baylis, Dora C.	Montreal.
Bennetts, Edith E.	Ottawa, Ont.
Brehaut, Cora.	Murray Harbor, P.E.I.
Brower, Margaret N.	Philadelphia, Pa.
Borwnlee, Hazel.	Montreal.
*Budden, Jessie.	Montreal.
Carr, Robena M.	Trout River, P.Q.
Cruickshank, Eleanor.	Windsor, Ont.
*Fleet, Jane D.	Montreal.
Green, Cecelia R.	Victoria, B.C.
*Hebden, M. Brenda.	Montreal.
Lamb, Elvie D. M.	Granby, P.Q.
Lawlor, Emma G.	Westmount.
McEwen, Helen F.	Carleton Place, Ont.
McKinnon, Annie M.	Kimberley, P.Q.
MacKinnon, Marion G.	Seattle, Wash.
McWhinney, M. Olive.	Vancouver, B.C.
Miller, Clare B.	San Luis Potosi, Mexico.
Mount, B. Ruth.	Westmount.
Murchison, Vivian G. V.	Montreal.
Murphy, A. Winnifred.	Montreal.
Plaisted, Lilian D. W.	Dunham, P.Q.
Rosenberg, Hannah N.	Montreal.

*Partial Student. §Double Course Student.

NAME.	HOME ADDRESS.
Seymour, Louise E.	Montreal.
Taylor, Margaret	Montreal West.
Thompson, Eileen B.	Montreal.
Trenholme, Katherine T.	Westmount.

PARTIAL STUDENTS TAKING SPECIAL COURSES FOR TEACHERS IN ARTS.

Ahern, Kate
Allan, Mabel
Allen, Mary Vaughan
Archibald, Henry F.
Bacon, Frederick J. A.
Baillie, Jean F.
Bain, Archibald W.
Barr, Edna G.
Bayley, Margaret E.
Bennet, M. Ethelwyn
Boa, Helen G.
Bogan, Ellen M.
Booth, Ethel G.
Boright, Carrie E.
Bouchard, Myra M., B.A.
Bremner, Jennie M.
Brims, May C.
Brittain, Isabel E., B.A.
Brittain, Mabel
Brooks, Mary W.
Brown, Janie N.
Bruneau, Beatrice C.
Bruneau, S. Herminie
Butteris, Florence
Carlyle, J. Elizabeth
Caron, Irene O.
Clark, Fanny
Clarke, Margaret
Clayton, (Mrs.) Frieda
Clelland, Christina
Cooke, Effie M.
Copland, Isa M.
Cowans, Glady C.
Craig, Margaret, B.A.
Dennis, Matilda S.
Dennis, Selina E.
Dewar, Della
Dick, Edith M.
Doane, Edith
Douglas, Clara L.
Duckworth, Edwa d E.
Dumaresq, Lilian S.
Dyas, Katheryne G.
East, Edith M., M.A.
Ewan, Annie E.
Feilde, Irene C.
Floud, Mary Louise
Forsyth, Alice I.
Forsyth, Edith J.
Forsyth, Florence E.
Fultz, J. Emily
Galbraith, Myrtle P.
Galley, Florence M.
Godue, R. Josie
Hatton, Jennie M.
Hurst, Isabel M., B.A.
Hyde, Amy S.
Inns, Marie
James, Agnes S., B.A.
Johnson, May G.
Jordan, Isabel
Kelly, Jean R.
Kempffer, Ethel J.
Killingbeck, A. Gwen
Kirkman, Kate
Kneen, Grace A.
Kruse, Bertha E.
Kydd, Helen M.
Lafleur, Evelyn L.
Lamb, Lily C.
Lariviere, Emma S.
Laughton, Minnie M.
Lawrence, Hortense E.
LeDain, Frances R. B.
Lindsay, Isabel M.
Locke, Helen D.
Luke, Emily G.
Lundie, E. Helen, M.Sc.
Luttrell, Jane L.
MacArthur, Archibald, B.A.
MacBain, Ellen E.
McCally, M. Kathleen, B.A.
McCoy, Isabel, B.Sc.
Macdiarmid, Katie, B.A.
McFarlane, Mary B.
Macfarlane, Rhoda M.
Mackay, Nora K
McLeod, Myrtle.
McMillan, Jessie A.
Miller, Ruby R.
Morrison, L. Helen.
Moss, Florence H.
Murdoch, Margaret M.
Nicholson, Marion A.
Norris, Amy.
Norris, Grace B.

PARTIAL STUDENTS TAKING SPECIAL COURSES FOR TEACHERS IN ARTS.

Powles, Annie B.
Radley, Edith L.
Reid, Bessie M.
Reid, Elizabeth J.
Riddell, Elvira K.
Robins, S.F.
Ross, Margaret.
Ross, Theodora M.
Roulston, Ida.
Runk, Lena S.
Samson, Marion L.
Schafheitlin, Hedwig.
Seeley, Lily.
Shaw, H. A.
Shaw, S. Louise, B.A.
Simpson, Edith P., B.A.
Simpson, Mabel K.
Smardon, Theo.
Smiley, Francis C., B.A.
Smith, Ethel M.
Smith, Gertrude E.
Soles, Edith C.
Steele, Ellen A.
Sutherland, Margaret S.
Swan, Annie B.
Taylor, Helen H.
Tees, Carrie Osborne.
Tippet, M. Lillian.
Turfus, Elizabeth.
Vibert, Lillian, L.
Vivian, Ida M. E.
Wallace, Mabel, L.
Warriner, J. Eva, B.A.
Weir, Alice.
Weir, Jane.
Weir, Margaret.
Wilson, Christina M. G.
Wilson, Margaret, J. B.A.

FACULTY OF APPLIED SCIENCE.

FIRST YEAR.

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED
*(2)Adam, Joseph A.	Montreal.	
*(2)Adam, Réné.	Quebec, P.Q.	
*(2)Alexander, Edgar D.	Westmount.	Montreal High School.
*Alexander, William Boyd.	St. Leonards-on-Sea, Eng.,	Private Tuition.
Ashby, Gerald S.	Montreal.	
Baily, Philip P.	Montreal	Malvern College, Eng.
†Baker, Massy.	Bamsha, Tipperary, Ire.	Private Tuition.
Baridon, Frederick W	Westmount.	Westmount Academy.
†Barwick, Oliver A. (Arch).	Montreal	Shortell's Academy.
Bauset, L. R. Jules.	Montreal	Private Tuition.
*(2)Beaulne, G. Ernest.	Montreal	Stanstead College.
*Bell, G. Gordon	Ottawa, Ont.	Private Tuition.
*(2)Bell, William E.	Westmount.	Montreal High School.
†Berrill, Frederick C.	Kettering, Eng.	Rossall School, Eng.
†Berry, Robert C.		
†Bingell, Hilary V.	Montreal	Montreal High School.
Boire, Joseph J.	Quebec, P. Q.	Boys' High Sch., Quebec
*(2) (3) Boyd, Laurence C.	Bobcaygeon, Ont.	Corpus Christi, Oxford.
(2)*Brisbane, John S.	Westmount	Westmount Academy.
*(2) Brown, Lawrence.	Ottawa, Ont.	Ottawa Collegiate Inst
Brown, M. Barclay	Londonderry, N.S.	Haverford Sch., Pa.
†Brown, Thomas A.	Victoria, B. C.	University Sch., Victoria.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. ‡Conditioned Undergraduate. †Conditioned Student.

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
†Buckman, Addison W.	Ottawa, Ont.	Ottawa Collegiate Inst.
Burrow, Horace L.	Hamilton, Ont.	Hamilton Coll. Inst.
†Calder, C. Douglas	Westmount	Westmount Academy.
*Caldwell, Thomas R.	Lanark, Ont.	Ashbury College, Ottawa
Chambers, Hugh D.	New Glasgow, N.S.	New Glasgow High Sch.
*(2)(3) Clawson, Frederick A.	St. John, N.B.	
Cloran, Edmund P.	Montreal	Westmount Academy.
*Cooke, Arthur D.	Westmount	Shortell's Academy.
*(2)Coombes, Bernard D.	Winnipeg, Man.	St. John's Coll. Winnipeg.
*Couture, Armand P.	Montreal	Montreal High School.
*Creaghan, T. Cyril	Newcastle, N.B.	
Crewdson, Eric	Beathwaite Green, Eng.	Uppingham Sch., Eng.
Crossfield, John T. K.	Monmouth Eng.	Haileybury, Eng.
Dalton, Noel Roy	New York City, N.Y.	Upper Can. Coll. Toronto
Davidson, Carl G.	Montreal	St. Albans Sch. Brock'vl.
Davidson, Donald A. L.	London, Eng.	Wellington College, Eng.
Davies, J. Frederick B.	Hull, P.Q.	Ottawa, Coll. Inst.
*(2)Demers, John C. Albert	St. Johns, P.Q.	Jacques Cartier, N.S.
†Dempster, Reginald C.	Rossland, B.C.	Trinity Coll. Sch. Port Hope, Ont.
*(2)Derosiers, Ivanhoe.	Ottawa, Ont.	
*Dixon, Archibald H.	Hamilton, Ont.	Highfield Sch., Hamilton
Dodd, George S.	Newport, Jamaica.	Potsdam Sch., Jamaica
†Dougall, J. Brerton	Montreal	Private Tuition.
*Dowling, Allan P.	Ottawa, Ont.	Ottawa Coll. Inst.
Doyon, George	Ottawa, Ont.	Ottawa University.
*Drummond, Gerald I.	Montreal	Private Tuition.
*Durant, Edward L.	Montreal.	St. John's School.
†Duval, J. Maurice	Westmount	Shortell's Academy.
Duval, Leo Manners	St. Johns, P.Q.	Feller Inst. Grande Ligne.
†Eardley, Wilmot, Trevor	Perth, Ont.	Trinity Coll. School.
Eaton, H. Vincent	Westmount	Montreal High School.
Egerton, Rowland P.	London, Eng.	Clifton Coll. Bristol, Eng.
†Ekers, Archer	Montreal	St. John's School.
†Eliasoph, Joseph E.	Quebec, P.Q.	Quebec High School.
*Emmans, Ross (Arch)	Montreal	Bishop's College School.
*(3)Fay, Samuel Ernest	Gerrard's Cross, Eng.	Malvern College, Eng.
Finley, Harold J.	Lachine, P.Q.	Lachine Academy.
Fitzgerald, Edward	Peterboro, Ont.	Peterboro Coll. Inst.
†Fyles, Lyndon F.	Abercorn, P.Q.	Feller Inst. Grand Ligne.
*(2)Gaudion, John Harold	Ft. Covington, N.Y.	Ft. Covington High Sch.
†Gilchrist, George H.	Ottawa, Ont.	Ottawa Collegiate Inst.
*Gilmour, James K.	Brockville, Ont.	
*(2)Gohier, J. Ernest	St. Laurent, P.Q.	St. Laurent College.
†Gomez, Alfonso J.	Medellin, S. America	Shortell's Academy
Goodwin, W. Carlyle	Westmount	Montreal High School.
Gordon, William Bain	Portland, Oregon	Portland High School.
†Grafftey, W. Arthur	Westmount	Montreal High School.
*Graham, Jack	Ottawa, Ont.	Ashbury Coll., Ottawa.
Hamer, Thurston Moseley	Mexico City, Mexico.	Bishop's College School.

The figure (2) (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. †Conditioned Student.

Name.	Home Address.	Where Last Educated.
†Hample, Carl Samuel	Winnipeg, Man.	St. John's Coll. Winnipeg
Hanley, Alphonsus E	Montreal	Mt. St. Louis Institute.
*Harris, Parker B	Gore's Landing, Ont.	Trinity Col. Sch. Port Hope, Ont.
Harrison, Austen St. B.	Shortlands, Kent, Eng.	Monkton Combe Sch., Eng.
†Harvey, Ernest R	Lyndhurst, Ont	High School, Athens, Ont.
*Hebden, John B	Montreal	Royal Military College.
Hooper, B. Reagh	Charlottetown, P.E.I.	Prince of Wales College.
Jacobs, Abraham	Montreal	City College of New York.
Jaques, George Eric	Westmount	Montreal High School.
Joseph, Kenneth de S	Quebec, P. Q.	High School of Quebec.
Joubert, Louis de G. B.A. (Laval)	Outremont, P.Q.	St. Mary's College.
Kavanagh, Walter J	Montreal	Private Tuition.
Kirby, Thomas H	Ottawa, Ont.	Ottawa Collegiate Inst.
*Kirkpatrick, Robert A	Ferguson, B.C.	Columbian College.
*(2)La Forest, J. Maurice	Montreal	Mt. St. Louis Institute.
*Landers, T. Leon S.	Farnham, P.Q.	Bishop's College.
†Leach, William L	Montreal	Montreal High School.
Learned, Frank B.	Learned Plain, P.Q.	Cookshire Academy.
Lindsay, Charles C.	Quebec, P.Q.	Quebec Commercial Acad.
*Lionais, Edward	Montreal	
Lovell, Henry P	Coaticook, P.Q.	Bishop's College.
†Ludington, William H.	Montreal	Crichton School.
*(2)Lynch, T. Leo	Fredericton, N.B.	Loyola College, Montreal.
Lyster, Horace M.	Kirkdale, P.Q.	Feller Inst., Grand Ligne.
Macaulay, Colin A.	Scotstown, P.Q.	Cookshire Academy
McBeath, Roy S.	Marshfield, P.E.I.	Prince of Wales College.
McCaghey, Norman F	Quebec, P.Q.	High School of Quebec.
McConkey, Benjamin B. (Arch)	Guelph, Ont.	Trinity Coll. Sch., Port Hope, Ont.
*McCuaig, Clarence N.	Montreal, P.Q.	Ridley College, St. Catharines, Ont.
McDonald, Louis M., B.A. (Laval)	St. John, N.B.	St. Joseph's College.
Macdonald, Norman H.	Sutton, P.Q.	Trinity Col. Sch. Port Hope, Ont.
McEvenue, St. Clair	Toronto, Ont.	Meisterschaft Sch., Toronto.
†McGregor, Hugh, R. (Arch)	Westmount	Private Tuition.
*McLean, Percy F.	Coaticook, P.Q.	Bishop's College.
*MacLeay, W. R.	Sayabec, P.Q.	Stanstead, Wes. College.
McLennan, W. Durie	Montreal	Montreal High School.
MacRae, William A	Montreal	Montreal High School.
†Mais, Herbert R	Kingston, Jamaica	Geo. Watson's Col. Edinburgh.
†Martin, John L. T.	Montreal	Comm. & Tech. High Sch.
†Mason, Edwin P.	Westmount	Crichton School.
†Masson, William G.	Ottawa, Ont.	Private Tuition.
*(2)Matheson, Walter	Charlottetown, P.E.I.	Prince of Wales College.
†Mathewson, Samuel J	Montreal	Montreal High School.
*(2)Metcalfe, Eric D	Montreal	Private Tuition.

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*Partial Student. †Conditioned Student.

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
*Mifflen, Sydney C.	Greenspond, Nfld.	Bishop Field Col., Nfld.
*Millman, Aaron (Arch)	Montreal	Private Tuition.
†Mitchell, Leslie S.	Westmount	Montreal High School.
Mitchell, William G	Port Hope, Ont	Port Hope High School.
*Monat, Charles O.	Montreal	St. Laurent College.
Morrow, Thomas McL.	St. John, N.B.	
†Morton, George P.	Hamilton, Ont.	Hamilton Coll. Inst.
*(2)Moseley, Frank A.	Montreal	Crichton School.
Murphy, Stephen J.	Montreal	St. Patrick's School.
Murray, Charles I.	Brockville, Ont.	Brockville Coll. Inst.
Nicholson, R. Ardrey V. (Arch.)	Ottawa, Ont.	High School of Quebec.
†O'Donnell, John G	Quebec, P.Q.	Laval University.
†Ouimet, Réné, (Arch.)	Montreal	Catholic Comm. Acad'y.
*(2)Pain, George F	Bayonne, N.J.	
Panet-Raymond, Bernard, B.A. (Laval)	Montreal.	St. Mary's College.
†Paterson, Harold S	Ottawa, Ont.	Ottawa Coll. Inst.
*Pelletier, George H	Montreal	Bishop's College School.
*(2)Peters, James D	St. John, N B.	Grammar School.
*Pickel, F. Eric	Sweetsburg, P.Q.	Cowansville, Academy.
†Pontbriand, George E.	Sorel, P.	Upper Canada College.
*Power, Edmund de G.	Ottawa, Ont.	Studyvera
Price, Henry B.	Montmorency Falls, P.Q.	Bishop's Coll. Sch.
*(2)Pullen, John	Westmount	Montreal High School.
Reeder, Kenneth A.	Saskatoon, Sask.	Saskatoon High School.
*(2)Reid, Earle L.	Coaticook, P.Q.	Stanstead College.
†Roche, Ivor.	Montreal	Mt. St. Louis Institute.
Roy, L. Philippe	Quebec, P.Q.	Loyola College, Montreal.
Ryan, J. Augustine	Montreal	St Patrick's School.
Savage, Geoffrey	Montreal	Private Tuition.
*Silver, Frank N	Montreal	Montreal High School.
Skeete, Arthur T.	Christ Church, Barbados,	Harrison College.
†Smith, Lawrence T. R.	Lachute, P.Q.	Lachute Academy.
*(2)Stevenson, John A.	Montreal	
Strong, Randolph W	Cambria, P. Q.	Lachute Academy.
*(2)Suckling, Gerald A.	Westmount, P.Q.	Wykeham House School.
Tait, Irving R.	Montreal	Montreal High School.
Taylor, George M.	Ottawa, Ont.	Quebec High School.
†Tett, Harold B	Bedford Mills, Ont.	Trinity Coll. Sch., Port Hope, Ont.
*Thom, Gordon O.	Westmount	Private Tuition.
Thompson, Geoffrey	Weybridge, Surrey, Eng.	Berkhamsted, Herts, Eng.
*Timmins, Jules R.	Haileybury, Ont.	Meisterschaft School, Toronto.
*Tothill, Geoffrey C.	Bungay, Suffolk, Eng.	Blundell's Sch., Eng.
Warwick, George W	Brockville, Ont.	Brockville Coll. Inst.
Webb, Chas. Harry	London, Eng.	Naval College, London.
†Wilson, Calvin P	Huntley, Ont	Arnprior High School.

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* Partial Student. † Conditioned Student.

NAME.	HOME ADDRESS.	WHERE LAST EDUCATED.
*(2)Wilson, E. William	Westmount	Montreal High School.
Wilson, William J	Ottawa Ont	Ottawa Collegiate Inst.
*Winslow, Hugh P	Montreal	Bishop's College School.
†Wood, James A	Melbourne, P.Q.	Shortell's Academy.
Wright, Walter G	London, Ont	London Collegiate Inst.
*(2)Wright, William E	L'Orignal, Ont	Hawkesbury High School

SECOND YEAR.

NAME	HOME ADDRESS
Abbott, William H	Westmount.
Alexander, Edgar D	Westmount.
*(3)Anderson, John G.	Victoria, B.C.
Angus, Roy F	Regina, Sask.
§Armstrong, J. Douglas	Ottawa, Ont.
*(3)Austin, Morris	Montreal.
Barnaby, Hazen O	St. John, N.B.
Barnes, Frank H	Port Hope, Ont
*(3)Beauvais, Louis J	Chicago, Ill.
Bell, Donald A. S	Ottawa, Ont.
*Best, Robert B	Montreal.
Biddulph, Richard H. H.	Reading, England.
Blair, Donald	Ottawa, Ont.
Bolan, William M	Montreal.
*(3)Bolton, Philip L	St. Lambert, P.Q.
Bonyun, W. Austin	San Fernando, Trinidad.
Boyd, Thornton B	Bobcaygeon, Ont.
Boyd, Winnette W	Bobcaygeon, Ont.
Brown, Michael J	Montreal.
Burr, Arthur V	Bloomfield, Ont.
Calkins, Harold A	Montreal.
*(3)Campbell, Colin	Ottawa, Ont.
Campbell, Kenneth M. (Arch.)	Fredericton, N.B.
Casey, Joseph F	Montreal.
Cash, George S	Wincanton, Eng.
Cassels, W. L. Lyttleton	Ottawa, Ont.
Clark, J. Hamilton	Ottawa, Ont.
Cohen, Nathan B	Montreal.
*(3)Connelly, William J	Montreal.
Cooper, Corin H. B	Frome, England
Cummer, Robert L	Hamilton, Ont.
*(3)Cummins, Philip M	Magog, P.Q.
*(3)Darling, Gordon	Montreal.
Davidson, W. Joseph	Westmount.
Davis, John C	Montreal.
DesRosiers, Arthur	Ottawa, Ont.

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*Partial Student. §Double Course Student. †Conditioned Student.

NAME.	HOME ADDRESS.
*(3) Dixon, Walter U	Montreal.
Downes, M. Augustine, B.A	Montreal.
Drummond, Kevin S	Midland, Ont.
*(3)(4)Drury, Archibald K	Westmount.
Duffield, Colin M	London, Ont.
Duggan, Herrick S	Sydney, N.S.
Edwards, Herbert L	Ponoka, Alta.
Elliott, Allan J	Westmount.
Fay, Leonard, W	Knowlton, P.Q.
*(3)Flewin, Walter R	Port Simpson, B.C.
*(3)(4)Fox, Charles A	Coaticook, Que.
Futterer, Edward	Albany, N.Y.
*(3)Gall, Arthur S	Montreal.
*(3)Galloway, Charles C	Grand Forks, B.C.
*(3)Garth, Charles H	Rosemere, P.Q.
Gass, Laurence H	Montreal West.
Gnaedinger, F. Theo	Westmount.
Goode, Thomas G	Westmount.
*(3)Gorman, T. Clarence	Montreal.
Gougeon, Hugh D	Saskatoon, Sask.
Graham, Ewen J	Apple Hill, Ont.
*(3)Grattan, Paul	Bushey, Herts, Eng.
Hadley, Clifford D	Montreal.
Hall, Edward P	Quebec, P.Q.
Hanington, Arthur E. W	Ottawa, Ont.
Hayward, John G	Brockville, Ont.
Hetherington, Errol A	Quebec, P.Q.
Heward, Francis S. B	Montreal.
Hugessen, Adrian K	London, England.
Hugh-Jones, Evan B	Wrexham, N.W.
Hughson, John W	Ottawa, Ont.
*Hull, Harold L	Johannesburg, S.A.
Hutchins, George R	Montreal.
Hyman, J. Stanley	Westmount.
Hyman, William S	Montreal.
Jelly, Ernest M	Carleton Place, Ont.
Johnson, Geoffrey A	Ottawa, Ont.
Jordan, Ernest H	Goderich, Ont.
Kearns, James A	Montreal.
Kirby, Sidney S	Ottawa, Ont.
Lapp, Frank W	Cobourg, Ont.
Lauder, Lester E	Maisonneuve, P.Q.
*Lawson, Frank (Arch.),	Calgary, Alta.
Lefebvre, Eugene	Montreal.
*(3)Legris, Charles E	Arctic, R.I.
Lesage, George W	Montreal.
*(3)Lindsay, Neville H	Calgary, Alta.
Lockhart, Earle A. (Arch.),	Montreal
Lynch, James A	Hastings, Barbadoes
McCammon, John W	Inverness, Que.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student.

Name	Home Address.
McCuaig, Thomas R	Vankleek Hill, Ont
MacDermot, Edward C	Montreal.
McDougald, Charles W. H	Ottawa, Ont.
§McGannon, Edward M	Brockville, Ont.
*Mackintosh, Ivan R	
McLeod, Clement K	Montreal.
Macleod, Donald L	Summerside, P.E.I.
McMahon, James W	St. Albans, Vt.
McMaster, Harold G	Montreal.
McRae, Joseph P	Ottawa, Ont.
*(3)Mallory, G. E. Leigh	Bowmanville, Ont.
Masson, Donald H	Ottawa, Ont.
Mather, Richard H	Ottawa, Ont.
May, William T	Ottawa, Ont.
Nichols, L. Howard	Montreal.
Norris, J. Hillyard	Westmount.
Paddon, Hubert A	St. Johns, Nfld.
Peden, Ernest	Montreal West.
Pitts, Andrew A	Westmount.
Prince, Preston G	Montreal.
*(3)Ralston, Edward da F	Sao Paulo, Brazil.
Randolph, Thomas G	Frome, Somerset, Eng.
Redpath, Ronald F	Montreal.
*Reid, Arthur W	Ottawa, Ont.
Reinhardt, Ernest A	Westmount.
§Rennoldson, David B	Westmount.
Richards, Hugh A. (Arch.)	Ottawa, Ont.
Robb, James B	Westmount.
Robertson, Charles	Brantford, Ont.
Rolland, Herman J	Montreal.
Routledge, Henri O	Dorsetshire, Eng.
*(3)Roy, James L	Bedford, N.S.
Ryan, Edward A	Westmount.
Salter, John N	Ottawa, Ont.
Sargent, Albert E	Montreal.
Saunders, Rodney V	Sandy Cove, N.S.
Schippel, Henry F	Montreal.
*(3)Scott, Allen N	Ottawa, Ont.
*(3)Seath, J. Marshall	Montreal.
Shaw, Douglas A	Montreal.
Sherman, John J	Hawkesbury, Ont.
*(3)Skelton, Philip H	Montreal.
Skelton, Ralph	Rosemere, P.Q.
Smith, Briton O	Montreal.
Starke, Henry M	Rochester, N.Y.
*Stevens, S. Ruston	Stanstead, Que.
Stroud, Wallace D	Montreal.
Tebbutt, Oswald N	Cambridge, Eng.
Thomas, H. Clare	Coaticook, P. Q.
Traversy, Valmore I	Westmount, P.Q.

The figure (2), (3) or (4) prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. §Double Course Student.

NAME.	HOME ADDRESS.
Turnbull, Alan	Hamilton, Ont.
Vallance, H. Walter	Hamilton, Ont.
Veilleux, William H	Sherbrooke, P.Q.
Warburton, J. Arthur	Charlottetown, P.E.I.
Weber, K. Rudolph	Montreal.
Weir, James	Saskatoon, Sask.
Wheatley, James H	Westmount.
Whittall, Fred R	Westmount.
Wilson, Charles (Arch.)	Dundas, Ont.
Wilson, William B	Ottawa, Ont.
*(3)Woodyatt, Charles F. K	Brantford, Ont.

THIRD YEAR.

Allwood, Frank H	Chapelton, Jamaica.
Alward, Ernest T	St. John, N.B.
Anderson, Alexander A	Ottawa, Ont.
Archibald, Ernest B	Montreal.
Bacon, Thomas H	Montreal.
Biggar, Arthur L	Ottawa, Ont.
*Bisson, Leonard	Hull, P.Q.
Boast, Richard G	Richmond, P.Q.
Bowman, Alex. I. M	Ste. Therese, P.Q.
Brebner, William I	Georgetown, B. Guiana
Briercliffe, Henry C. D	Richland, Man.
Brotherhood, Wilfred C	Stratford, Ont.
Brydone-Jack, Herbert D	Vancouver, B.C.
*(4)Buisson, Arthur	Victoriaville, Que.
*(4)Campbell, William B	Winnipeg, Man.
Carnwath, James	Riverside, N.B.
Child, Cyril G	Calgary, Alta.
Christie, John E	Lachute, P.Q.
Clark, Raymond B	Highgate, Jamaica.
Collier, Harold F	Montreal.
Cram, Haldane R	Ottawa, Ont.
Davis, Ira T	Amherst, N.S.
deGruchy, Charles S	Westmount, P.Q.
Dennison, Lawrence G., B.A	Westmount.
Dibblee, E. W	Moore's Mills, N.B.
Dodd, Geoffrey J	Westmount.
*(4)Duguid, A. Fortescue	Aberdeen, Scot.
Earle, Harry	Vancouver, B.C.
Eldridge, Gardner S	Vancouver, B.C.
Elliott, Fergus E	Montreal.
Evans, Alfred J. L	Quebec, P.Q.
Falcke, Joseph	Cape Town, S. Africa.
Forbes, D. Stuart	Montreal.
Forman, Edmund G. H	Coldon, Scotland.
Fortier, Frank A	Westmount.
Foster, Francis W	Montreal.

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*Partial Student.

NAME.	HOME ADDRESS.
Fraser, Harold A.	London, Ont.
Galloway, John D.	Grand Forks, B.C.
Gartshore, W. Moir	Hamilton, Ont.
Gillies, Clyde C.	Toronto, Ont.
Glasmacher, Walter A.	Ottawa, Ont.
Gnaedinger, Cedric W.	Montreal.
Goodeve, Leslie C.	Ottawa, Ont.
Gregory, Philip S., B.A. (Bishop's)	Fredericton, N.B.
Hargraft, Stuart A.	Winnipeg, Man.
Hasbrouck, Bernard	Nyack-on-Hudson, N.Y.
Hawkins, Stuart S.	Ottawa, Ont.
Holland, Francis C.	Leamington, Eng.
Hooper, J. Harold	North Milton, P.E.I.
Hudson, George M.	Westmount.
Irwin, William E. C.	Ottawa, Ont.
Ivey, Charles H.	London, Ont.
Johnston, Robin L.	St. John, N.B.
*Jones, Guy C.	Halifax, N.S.
Kearney, Graham	Renfrew, Ont.
Kelly, Albert J.	Edmonton, Alta.
King, Edmund Dewitt	Chipman, N.B.
Kingsley, Edward R.	Lindsay, Ont.
Koch, Ernest C.	Westmount.
Linagh, Ronald K.	Maisonneuve, P.Q.
Lipsey, Joseph	Montreal.
Macaulay, James R.	Montreal.
MacDonald, G. Heath	Murray Harbor, P.E.I
†MacDonald, Percy E.	Hamilton, Ont
McLeod, Allan C. G.	Montreal.
Mallory, Fred. E.	Jacksontown, N.B.
*Mayette, Joseph A.	Wallingford, Conn.
Millican, A. Gordon	St. John, N.B.
Morkill, Frank E.	Lima, Peru.
Motyer, Arthur J., B.A.	Hamilton, Bermuda.
Murphy, William H.	Montreal.
Murray, George E.	Ottawa, Ont.
Nares, Basil L.	Winnipeg, Man.
Nares, H. George	Winnipeg, Man.
O'Leary, Frederick J.	Laggan, Alta.
Oliver, Stuart E.	Quebec, P.Q.
Oughtred, Lawrence W.	Marbleton, P.Q.
Ovalle, N. Keith, B.A. (St. Joseph's)	Babylon, Long Island.
Parker, Stanley D.	Ottawa, Ont.
Payne, Sydney C.	Ottawa, Ont.
Peck: Hugh A.	Montreal.
Pengelley, Walter G.	Balaclava, Jamaica.
Philips, Campbell	Westmount
Planche, Clifford C.	Cookshire, P.Q.
Pope, Maurice	Ottawa, Ont.
*(4) Porter, Cecil G.	St. John, N.B.
Ray, Hugh P.	Westmount.
Richardson, Alan I.	Montreal.
Richardson, Creighton E.	Montreal.

*Partial Student. †Conditioned Student.

Name.	Home Address.
Robinson, Duncan S	Toronto, Ont.
Ross, Gordon	Montreal.
Scrivener, Robert M	Hay, N.S.W., Australia.
Smith, Willard R	St. John, N.B.
Smith, William P	Montreal.
Staveley, Walter D	Montreal.
Stevenson, Edward P	London, Eng.
Thompson, Norman A	Coaticook, P.Q.
Underhill, Frederick C	Vancouver, B.C.
Walcott, William H	St. Michael, Barbadoes.
Walker, G. H. Pearson	Saskatoon, Sask.
Watson, Hugh M	Montreal.
Webb, Edward M	Montreal.
*Werner, Sheldon W	Elmira, Ont.
White, J. A. Gordon	Woodstock, Ont.
Whyte, Harold E	Victoria, B.C.
Willis, Frank S	Westmount.
Willis, George C	Toronto, Ont.
Wilson, Clifford St. J	St. John, N.B.
Wilson, R. Starr L	Lunenburg, N.S.
Wilson, T. Edgar	Langley, B. C.
Wood, Douglas F	Westmount.
Wood, Harold W	Montreal.
*(4)Wood, J. Russell	Peterborough, Ont.
*Wünsch, D. F. Sandys, B.A. (Oxon.)	Knutsford, Eng.
Young, John B	Kentville, N.S.
*Young, William L	Millsville, N.S.

Fourth Year.

Adrian, Robert W	St. John's, Nfld.
Alford, J. Newton	Belleville, Ont.
Anderson, Goldie F	Vancouver, B.C.
Archibald, Max S. E	Truro, N.S.
Ayer, Kenneth R., B.A	Montreal.
Beagley, Thomas G	Outremont, P.Q.
Blackett, V. St. Clair	Glace Bay, N.S.
Blanchard, E. Stirling (Arch.)	Charlottetown, P.E.I
Boright, G. Kenric, B.A. (Bishop's)	Montreal.
Brégent, Edmond	Montreal.
Brown, Osburn N	Newcastle, N.B.
Brunton, J. Stopford L	London, Eng.
Burland, G. Lewis	Ottawa, Ont.
Buttenshaw, Alfred S	St. Albans, Eng.
Cahan, John F	Montreal.
Callander, Delmer W	Guelph, Ont.
Campbell, William Boyd	Winnipeg, Man.
Clark, Albert W. G	Valleyfield, P.Q.
Cloran, J. Harry D	Montreal.
Cole, F. Thornton	Montreal.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

* Partial Student.

Name.	Home Address
*Collier, Frederick C	Montreal.
Colter, Ashley A	Keswick, N.B.
Cook, Archibald S	Quebec, P.Q.
Cowles, Eugene P	Montreal.
Cowley, A. Thomas N	Winnipeg, Man.
Cox, John R	Hindhead, Surrey, Eng
Dakin, Frederick W	Westmount.
Daubney, Charles B	Ottawa, Ont.
Daubney, James E	Ottawa, Ont.
Dawes, Andrew S	Montreal.
*Day, Thomas E	Parrsboro, N.S.
de Hart, Joseph B	London, Eng.
Dennis, T. Clinton	O'Leary Station, P.E.I.
Derrom, Donald L	Montreal.
Dobson, Arthur A	Fordwich, Ont.
Donald, Edward D	Westmount.
Dowie, Kenneth W	Westmount.
*Durant, Reginald W	Montreal.
Ekers, H. Austin	Montreal.
Elkins, Robert H. B	Berkeley, Cal.
Ewart, Douglas M	Ottawa South, Ont.
Ferrier, Tyrrell	Chatham, Eng.
Fisher, Seymour J	Hantsport, N.S.
Fowler, F. Scott	Winnipeg, Man.
Fregeau, John H	Three Rivers, P.Q.
Gibbins, Gwynn G	Vancouver, B.C.
Gilchrist, T. Ernest	Ottawa, Ont.
Gill, Peter C	Victoria, B.C.
Gillies, George A	Carleton Place, Ont.
Gladman, Victor L	Lindsay, Ont.
Gomes, Lawrence F	St. Johns, Antigua, B.W.I.
Goodchild, Ralph H	St. Lambert, Que.
Goodstone, A. Simon	Montreal.
Graham, Harold M	New Glasgow, N.S.
Grahame, Dallas F	Montreal.
*Graves, Frank W	Aylesford, N.S.
Hanson, William G	Montreal.
Harris, Harvey	Kingston, Jamaica.
Harris, Norman C	Brighton Beach, Australia
Hattie, James B	Caledonia, N.S.
Haultain, Alexander G	Montreal.
Hollinsed, Richard E. L	St. John's, Barbados.
Hudson, George M	Montreal.
Jackson, Donald A	Montreal.
Jost, Leslie G	Guysboro, N.S.
Kingston, John L	Ottawa, Ont.
Knewstubb, Frederick W	Carlisle, Eng.
Kohl, George H	Montreal.
Landry, Wilfred A	Dorchester, N.B.
Little, Harold R	London, Ont.
Lomer, Gerald B	Pointe Claire, P.Q.
MacAfee, Ralph E	Millstream, N.B.
MacDiarmid, Archibald A	Covey Hill, Que.

* Partial Student.

NAME.	HOME ADDRESS
Macdonald, J. Harrison	Claresholm, Alta
McDougall, J. Cecil	Montreal.
Macfarlane, R. George	Huntingdon, P.Q.
McHenry, Morris J.	London, Ont.
MacKay, Edward	Montreal.
*MacKay, George W	New Glasgow, N.S
MacLean, Calvin S	St. John, N.B.
McNab, Lewis G	Montreal.
McNaughton, Andrew G. L	Moosomin, Sask.
Macrae, John M	Golden, B.C.
Magrath, C. Bolton	Lethbridge, Alta
Malloch, Francis G	Hamilton, Ont.
Maltby, Quentin J	Midland, Ont.
Mauer, Eli	Montreal.
Meek, Victor M	Port Stanley, Ont
Menzies, John W	Ottawa, Ont.
*(3)Morison, Hugh G	Ormstown, Que.
Narraway, Athos M	Ottawa, Ont.
Needham, Robert J	London, Ont.
Openshaw, John E	Southport, Eng.
Paine, A. J. Carman	Lower Island Cove, Nfld
Pearce, Seabury K	Calgary, Alta.
Poissant, Onesime E	Montreal
Popham, J. F. Watson	London, Eng.
Powis, Gordon D	Hamilton, Ont.
Price, Thomas E	Vancouver, B.C.
Raymond, William W	St. John, N.B.
Reid, A. Cumberland	Winnipeg, Man.
Reid, Rupert H	Sault St. Marie, Ont.
Robertson, W. Scott	NotreDame de Grace,P.Q.
Ross, Allan C	Ottawa, Ont.
Rutherford, John R	Pictou, N.S.
Ryan, Frederick G	St. Lambert, Que.
Ryley, A. St. Clair	Ottawa, Ont.
Scott, Oswald H	Toronto, Ont.
Scott, Robert W	Queenstown, S. Africa
Scovil, Harry H	Hampton, N.B.
Shanks, Daniel Albert	Howick, P.Q.
Simpson, Alan C	Montreal.
*Slingsby, Henry	Thorpe Underwood, Eng.
Small, Frank S	Collina, N.B.
Smith, Albert W	Coverdale, N.B.
Sproule, Stanley M	Montreal.
Stackhouse, Charles W	Moncton, N.B.
Stark, Robert S	Montreal.
Stewart, Robert B	Strath Gartney, P.E.I.
Strong, Horace R. F	Cambria, P.Q.
Stuart, Alexander G	Buckingham, P.Q.
Sweetnam, Samuel	Skibbereen, Ireland.
Tanner, Henry E	Joliette, P.Q.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student.

NAME.	HOME ADDRESS.
*Thorne, Harvey,	Dartmouth, N.S.
Timberlake, John N	Montreal.
Trench, A. S. Chenevix	Camberley, Surrey, Eng.
Vinet, Eugène	Montreal.
von Pozer, Charles H	St. George East, P.Q.
Vroom, Harold H	St. Stephen, N.B.
Williams, F. G. Maxwell	Bath, Eng.
Williamson, W. Reginald	Owen Sound, Ont.
Wilson, Alexander	Montreal.
Wyman, John K	Rockland, Ont.
Young, Alexander A	Selkirk, Man.
Younger, Harry R	Ottawa, Ont.

SPECIAL STUDENT.

Cirkel, Fritz, M. E	Montreal.

FACULTY OF MEDICINE.

FIRST YEAR.

NAME.	HOME ADDRESS	WHERE LAST EDUCATED.
†Angelus, Alfred	Montreal	French Methodist Inst.
§Argue, Alan F	Carp, Ont	
*Arnott, Charles A	Nelson, B.C	Private Tuition.
Atkinson, Walter S	Mansfield, Ohio	University Sch. Clevela'd.
Barclay, Douglas J	New Westminster, B.C.	New Westminster H.S.
Bayne, Henry D	St. Michael, Barbados	Harrison College.
Benning, Charles H. P. G.	Montreal	Univ. Tutorial College, London, Eng.
Brown, Walter A	Moncton, N.B	St. Francis Xavier Coll.
†Cleveland, Donald E. H	Victoria, B.C	Victoria High School.
Convery, Ernest B	Montreal West	Westmount Academy.
Couillard, Albert	Ottawa, Ont	Ottawa University.
†Coy, Filmer E	Vancouver, B.C	Vancouver, B.C.
Dalpé, Willie G. (Dent.)	Montreal	Montreal High School.
Daw, William F	Bay Roberts, Nfld.	Bishop Field Coll. Nfld.
†Denny, James P	Georgetown, B.Guiana	The Middle School.
Dixon, Howard C	Maple Creek, Sask.	Manitoba University.
Donnelly, Joseph M	St. John, N.B	St. Francis Xavier Coll.
Dover, Harry	Aylwin, P.Q	Ottawa Collegiate Inst.
Fillmore, Millard J	Advocate Harb. N.S.	Mt. Allison Academy.
Fisher, Arthur M	Woodstock, N.B	
†Fitzpatrick, Edward J	Meriden, Conn	Holy Cross College.
Fleet, George A	Montreal	Y. M. C. A. School.
Gallagher, Joseph F	Bangor, Me	Bangor High School.
§Gardiner, Egbert	London, Ont	
Grant, William J	Georgetown, P.E.I.	St. Dunstan's College.
Gross, Harry S. (Dent.)	Montreal	Private Tuition.
Hartin, David	Nelson, B.C	Nelson High School.
†Hirshberg, Isadore B	Bay City, Mich	University of Michigan.
†Hutson, Lionel C	White Pk., Barbados	Harrison College.
Illievitz, Abraham B	Montreal	Y. M. C. A. School.

* Partial Student. † Conditioned Student. §Double Course Student

Name.	Home Address.	Where Last Educated.
†Jacobs, Edmund J.	Montego Bay, Jamaica.	Potsdam School.
Jewett, Marcus L.	Cent. Keswick Ridge.	Prov. Normal Sch. N.B.
Joyce, Cecil R.	Woodstock, Ont.	Woodstock Collegiate.
Kennedy, George L. D.	Ottawa, Ont.	Ottawa Collegiate Inst.
†King, Alfred E.	Waltham, Mass.	St. Dunstan's College.
Lee, James C.	Quebec, P.Q.	Quebec High School.
Leger, J. Anselme	Shediac, N.B.	Univ. of St. Joseph's Coll.
Legris, L. J. A.	Louiseville, P.Q.	University of Ottawa.
†Lennie, Theodore H.	N. West'mnster, B.C.	N. West'mnster High Sch.
Letvinoff, Paul	Vancouver, B.C.	Vancouver High School
†Luby, Thomas J.	Meriden, Conn.	Meriden High School.
†Lundon, Arthur E.	Canterbury, N.B.	Mt. Allison, Academy.
†Lundon, Charles T.	Canterbury, N.B.	Mt. Allison Academy.
Lyons, George A.	Moncton, N.B.	St. Francis Xavier Coll.
McCarroll, Francis L.	Arthur, Ont.	Arthur High School.
McCone, Edward E. (Dent)	Windsor Mills, P.Q.	Private Tuition.
MacIntosh, Aden F.	Dundela, Ont.	Iroquois High School.
†McKay, Charles.	Stoughton, Sask.	Manitou Collegiate.
MacKenzie, Henry H.	N. Westminster, B.C.	Columbian College.
Mann, Arthur H.	Stittsville, Ont.	Kemptville High School.
Mendel, David L.	Montreal	Montreal High School.
§Mewburn, Frank H. H.	Lethbridge, Alta.	
Miller, Howard B.	Sherbrooke, P.Q.	Bishop's College School.
Mooney, Joseph B.	St. John, N.B.	St. Francis Xavier Coll.
†Moore, William A.	Kaslo, B.C.	Harvard College.
Morrison, D. Arnold	Maxville, Ont.	Cornwall High School.
Murphy, E. V., A.B. (H.Cross)	Fall River, Mass.	Holy Cross Coll., Mass.
Mustard, Hugh R.	Victoria, B.C.	Manitoba College.
Phelps, F. Learn.	Westmount	Westmount Academy.
Pollock, John M.	Berwick, Ont.	Cornwall High School.
Powles, Clarence	Montreal	Private Tuition.
Primrose, John W.	Sheffields Mills, N.S.	Acadia University.
Robbins, C. Douglas.	Yarmouth, N.S.	Yarmouth Academy.
§Roberts, Lawrence H.	Ottawa East, Ont.	
Ruddick, William W.	St. John, N.B.	Mt. Allison Academy.
Ryan, Edward J.	Fairfield, Me.	Colby College.
St. Pierre, Damien	Moose Creek, Ont.	Montreal Sem. of Philos.
Sahler, S. LeRoy	Kingston, N.Y.	Temple University.
Salo, Matthew A.	Notch Hill, B.C.	Vancouver College.
†Scott, William Earl (Dent)	Montreal	Private Tuition.
Sharp, Albert D.	Summerside, P.E.I.	Horton Academy.
Smith, John M.	Kinkora, P.E.I.	St. Dunstan's College.
Smith, Lee	Vancouver, B.C.	Vancouver High School.
†Smyth, Philip P.	Peterboro, Ont.	Peterboro Collegiate Inst.
Solomon, Arthur S. (Dent.)	Montreal	Private Tuition.
Sproul, Melville J.	Martintown, Ont.	Williamstown High Sch.
Taylor, Walter F.	Charlottetown, P.E.I.	Prince of Wales College.
Tidmarsh, F. Wendell.	Charlottetown, P.E.I.	Prince of Wales College.
†Wathen, James M. (Dent.)	Harcourt, N.B.	Fredericton High School.
Wickham, John C.	St. Lambert, P.Q.	Loyola College
†Wiley, David E.	Andover, N.B.	University of N.B.
Windeler, Eric C. H.	Hazel Hill, N.S.	Collegiate Sch., Windsor.
Wright, H. P., B.A (Bishop's)	Ottawa, Ont.	Bishop's College.

†Conditioned Student. §Double Course Student.

Second Year.

Name.	Home Address.
Astrofsky, Samuel	Montreal.
Atkinson, J. Hedley	Mansfield, Ohio.
Baird, Frederick S	Bay City, Mich.
Beaton, Malcolm	Moose Creek, Ont.
Beaudry, Joseph H	Bridgeport, Conn.
Bilodeau, Joseph P	N. Westminster, B.C.
Boyce, William E	Rawdon, P.Q.
Brown, Norman	New Westminster, B.C.
§Bruneau, I. Edgar	Montreal.
Burrows, Garfield C	Guelph, Ont.
Busteed, Daniel F	Vancouver, B.C.
Cheney, Hill H	Monticello, Maine.
Clark, Lewis E	Vancouver, B.C.
Crowdy, Charles T	St. John's, Nfld.
Cumming, Herbert E	Russel, Ont.
Cumming, John	South Gower, Ont.
DeGarmo, Philip W	Kingston, N.Y.
Delahey, Allan L	Pembroke, Ont.
§Digby, Reginald W	Brantford, Ont.
§Douglas, H. Townley	Montreal.
Downing, Geroge F	Rougemont, P.Q.
Forbes, C. Alexander	Bonavista, Nfld.
Geldert, George M	Windsor, N.S.
Gold, Maxwell (Dent)	Montreal.
Gowdy, William C	St. Michael, Barbados.
Grant, James F	Victoria, B.C.
Grundy, Gordon M	Long Beach, Cal.
Henderson, Arthur T	Brown's Town, Jamaica.
Hutton, Willis A	Lachine, P.Q.
Jenkins, John S	Charlottetown, P.E.I.
Jones, A. Llewelyn	Victoria, B.C.
Jones, Bert Logan	Sprague, Wash.
Jones, Norman L	Kemptville, Ont.
Kirkland, A. Stanley	New Westminster, B.C.
§Kolber, Joseph,	Montreal.
Krolik, Melville, Z	Winnipeg, Man.
Lennox, Thomas H	Yorkton, Sask.
Levine, Edgar C	Montreal.
Lightstone, Bernard (Dent)	Montreal.
McCormack, Andrew C	Renfrew, Ont.
MacDermot, Hugh E	Montreal.
McIntyre, George D	Avonmore, Ont.
†Mackay, Albert A	Montreal.
McLean, William J	Perth, Ont.
Macleod, Donald A	Ottawa, Ont.
Malloch, Thomas A., B.A. (Queen's)	Hamilton, Ont.
*Marcuse, Otto	Westmount.
Massiah, John H	Georgetown, B. Guiana.
Meeker, Jay E	Malone, N.Y.
Melhado, Gerald C	Old Harbour, Jamaica.
Morris, Wesley G	Regina, Sask.

* Partial Student. † Conditioned Student. § Double Course Student.

Name	Home Address
Mulloy, P. J.	Toronto, Ont.
Munroe, Finlay	Maxville, Ont.
Munro, J. Garfield	Woodstock, Ont.
Nase, Philip, B.A. (Mt. Allison)	St. John, N.B.
O'Donnell, John E.	Fort William, Ont.
Parker, Frederick D.	Wolfville, N.S.
Pelletier, Albert	Montreal.
Perreault, William J.	Ottawa, Ont.
†Phelan, George W.	Ash Point, Maine.
Phillips, J. Gordon	Forest, Ont.
Purdy, Water T., B.A.	Amherst, N.S.
§Ramsay, Irving D.	Waskada, Man.
Ramsey, G Stuart, B.A.	Quebec, P.Q.
Reeves, Charles W.	Atlanta, Ga.
Reid, Charles M.	Montego Bay, Jamaica.
Robertson, Russell B.	Vancouver, B.C.
Robson, Charles H.	New Westminster, B.C.
Rogers, Keith F.	Yarmouth, N.S.
§Ross, S. Graham	Montreal.
Scott, W. Clifford M.	Ottawa, Ont.
Segal, Jake	Montreal.
Smith, Charles H. V.	Cote St. Paul, P.Q.
Smith, J. Arthur	New Westminster, B.C.
Stewart, Robert C., B.Sc.	Quebec, P.Q.
Strang, Allan M. (Dent.)	Quebec, P.Q.
Thomas, Morris W.	Victoria, B.C.
Thompson, Allen Edgar	Coaticook, P.Q.
Wall, James T.	Vancouver, B.C.
Williams, William E.	Mount Pleasant, P.E.I.

Third Year.

Bancroft, Aubrey G.	Bridgetown, Barbados.
Beck, Sem G.	Hecktown, Pa.
Bourne, Charles R.	New Westminster, B.C.
Briggs, Tilman A.	Victoria, B.C.
Brown, Samuel	Hallville, Ont.
Campbell, Archibald D.	Glencoe, Ont.
Canegata, David C., B.A.	Christiansted, D.W.I.
Clouston, Howard R.	Huntingdon, P.Q.
Crawford, John W.	Courtenay, B.C.
Crombie, David W.	London, Ont.
Cunningham, Rutherford B., M.D. (Bishop's)	Montreal.
Davies, Andrew P.	Hull, P.Q.
Derby, Leonard L.	Plantagenet, Ont.
Derome, H. Rupert, B.A. (Laval)	St. Chrysostome, P.Q.
Draper, F. Erle	Montreal.
Dryden, Thaddeus A.	Highgate, Jamaica.
Ewert, Paul, B.A. (Oberlin)	Gretna, Man.
Falardeau, Adelard	Hull, P.Q.
Falconer, Ernest H.	Prentice, Wis.
Foster, Arthur N.	Providence, R.I.
Freeze, David F. D.	Sussex, N.B.

†Conditioned Student. §Double Course Student.

Name	Home Address
Furlong, Harry G.	Norwich, Ont.
Geggie, Harold J. G.	Beauport, P Q.
Gillespie, John Haliday	Morrisburg, Ont.
Glickman, Abraham (Dent.)	Montreal.
Gliddon, W. Osborn, B.A.	Ottawa, Ont.
Gregory, Fred L.	Fairfield, Maine.
Hamilton, C. Dickinson	Cornwall, Ont.
Harrison, John, B.A. (Cantab.)	Georgetown, B. Guiana.
Hebert, Albert J.	Lachine, P.Q.
Hickson, Charles R., B.A. (Mt. Allison)	St. John, N.B.
Houle, Lester G.	Charlottetown, P.E.I.
Irven, John J.	Alexandria, Ont.
Kennedy, Frederick W. (Dent.)	Montreal.
Legault, J. Horace	Ottawa, Ont.
Lewis, D. Sclater, M.Sc.	Montreal.
Lundie, John Alex.	Montreal.
McCarthy, John A.	St. John, N.B.
McCreary, Charles H.	Morrisburg, Ont.
MacDonald, Dalraddy L., B.A.	La Guerre, P.Q.
McGibbon, Roy H.	Montreal.
McGibbon, Walter J.	Chateauguay, N.Y.
MacHaffie, Lloyd P.	Cornwall, Ont.
McKay, Frederick H.	Mt. Stewart, P.E.I.
McKim, Laurie H.	Wallace Bridge, N.S.
Macleod, James S.	Charlottetown, P.E.I.
McNulty, Lloyd T.	Norwood, N.Y.
MacNutt, Louis W.	Charlottetown, P.E.I.
Mavety, J. LeRoy.	Ottawa, Ont.
Mulcahy, William E.	Holyoke, Mass.
Oulton, John R., B.A.	Lorneville, N.S.
Planche, H. Howard.	Cookshire, P.Q.
Robert, Harold R.	Au Sable Forks, N.Y.
Roberts, M. Chesley.	Brigus, Nfld.
Rosenbaum, J. Jack.	Montreal.
Scobie, Thomas J.	Kars, Ont.
Shannon, W. Lloyd.	Vancouver, B.C.
Steeves, Harold C., B.A.	Hillsboro, N.B.
Stewart, John D.	Calgary, Alta.
Stewart, John W.	Hampstead, Ont.
Stone, W. Ross.	Vancouver, B.C.
Sutherland, Thomas W.	Saskatoon, Sask.
Swaine, Frederick S., B.A., (Mt. Allison)	North East Harbor, N.S
Taylor, S. Wesley.	Montreal.
Vigneux, Maurice J.	Nelson, B.C.
Walcott, Edward J. O'N.	Christ Church, Barbados.
Walter, Arthur B.	Salt Spring Is., B.C.
Webster, Alex. V.	Marie, P.E.I.
Wheeler, Ralph de F., B.A.	Montreal.

Fourth Year.

Allen, John Anson L.	Hallville, Ont.
Allen, Kenneth W.	St. John, N.B.
Allingham, John H., B.A. (N.B.)	Fairville, N.B.
Amant, Harry.	Chandlerville, Ill.

NAME	HOME ADDRESS.
Anderson, William M.	Midgic, N.B.
Aronson, Aaron M. (Dent.)	Montreal.
Baldwin, William James	Ogdensburg, N.Y.
Bauld, William A. G., B.A. (Dal.)	Halifax, N.S.
Benner, Frank A.	Bayham, Ont.
Black, Vaughan E., B.A. (Mt. Allison)	Amherst, N.S.
Booth, Gordon E.	Ottawa, Ont.
Boudreau, Frank G.	Merrickville, Ont.
Bourne, Wesley	Pollards, Barbados.
Brown, David M.	Motherwell, Scotland.
Burton, William E.	Bridgetown, Barbados.
Carruthers, Robert S. P.	North Bedeque, P.E.I.
Champion, Benjamin H.	Summerside, P.E.I.
Chisholm, Hugh G., B.A. (St. Francis Xavier)	Antigonish, N.S.
Clarke, T. L. Evelyn	Brooklyn, N.Y.
Conroy, Claude J.	Montreal.
Crease, Arthur L.	Nelson, B.C.
Culver, Cyrus W.	Harrisville, N.Y.
Dakin, Warren A., M.A. (Mt. Allison)	Pugwash, N.S.
Doyle, Philip E.	Hawkesbury, Ont.
Dunbar, David A.	Alma, P.E.I.
Dunnet, Henry W.	Ottawa, Ont.
Elliott, Robert, B.A.	East Clifton, P.Q.
Ewert, Carl	Gretna, Man.
Fraser, John R.	Lakefield, Ont.
Fraser, Wilbert G.	Pembroke, Ont.
Froomes, Leo E.	Montreal.
Gallagher, Joseph B., B.A.	Bath, N.B.
Gillis, Stephen H.	Indian River, P.E.I.
Gilmour, William N.	Brockville, Ont.
Graves, Charles A.	Tillsonburg, Ont
Gray, Edwin, H., B.A., B.D.	Montreal West.
Guilfoyle, Vincent G.	Waterbury, Conn.
Havey, Harry B., B.A. (Acadia)	Digby, N.S.
Hawkshaw, Edwin P. (Dent.)	Chilliwack, B.C.
Hawkins, Allan B.	St. Michael, Barbados.
Hepburn, Howard H.	Edmonton, Alta.
Hepburn, William G.	Stratford, Ont.
Herbert, Thomas A.	Bridgetown, Barbados.
Hicks, Elbert R., B.A. (Mt. Allison)	Upper Dorchester, N.B
Hutchison, George W.	Escott, Ont.
Kaine, William J., B.A. (Laval)	Brattleboro, Vt
Kearney, Garnet H.	Renfrew, Ont.
Keay, Arnold	New Glasgow, N.S.
Lavers, Percy L.	Georgetown, P.E.I.
Locke, J. Allen	Irena, Ont.
Lockwood, Ambrose L.	Westport, Ont.
Logie, H. Burton, B.A., (N.B.)	Chatham, N.B.
McAlister, William J.	Winnipeg, Man.
Macaulay, Albert E.	St. John, N.B.
McBurney, Albert, B.A.	Sawyerville, P.Q.
McCracken, William A.	Cornwall, Ont.
McDonell, Donald S. H. (Dent.)	Alexandria, Ont.
McEachern, Malcolm T.	Fenelon Falls, Ont.
Mackintosh, Arthur E.	Pugwash, N.S.

Name.	Home Address.
MacMillan, Hugh	Vancouver, B.C.
Macmillan, Stanley	Isaac's Harbor, N.S.
McMillan, W. Herbert	Brockville, Ont.
McNaughton, Murray W. A	Moosomin, Sask.
Macneill, Alvin L. H	Stanley Bridge, P.E.I.
MacPhee, John A., B.A. (Laval)	Charlottetown, P.E.I.
Malcolm, Robert B	St. John, N.B.
Marchant, Harold B	Victoria, B.C.
Miller, Robert S., M.D. (Meharry)	Demarara, B. Guiana.
Moodie, A. Russell	Perth, Ont.
Morse, D. Garnet	Lawrencetown, N.S.
*Moses, Harry C., M.D	Caledonia, Ont.
Mundie, Gordon S., B.A	Westmount.
O'Brien, John F	Fall River, Mass.
O'Callaghan, Robert H. L	East Sheen, Surrey, Eng.
Park, John E	New Glasgow, N.S.
Patten, Lee Alfred	Armstrong, B.C.
Peabody, Harry S	Mansonville, P.Q.
Peele, Sidney B	New Westminster, B.C.
Piper, John O., A.B. (Bates)	Bingham, Maine.
Raphael, Howard M	Ottawa, Ont.
Reed, Everett H	Whitman, Mass.
Richardson, J. Wilson	Mountain, Ont.
Robinson, Thomas A	St. Mary's, Ont.
Scott, George O	Ottawa, Ont.
Shephard, Harold M	London, Ont.
Shillington, Richard N. W	Ottawa, Ont.
Sihler, George A	Litchfield, Ill.
Sinclair, Fred D., B.A	St. Stephen, N.B.
Speer, Robert B	Danville, P.Q.
Stewart, Archibald	South Indian, Ont.
Strudwick, Henry T	Duncans, Jamaica.
Turner, John S	Spanish Town Jamaica.
*Valin, Aimé	Ottawa, Ont.
Walker, Edmund E. W	Hamilton, Bermuda.
Wallace, Irwin	Belleville, Ont.
Wilson, George T., B.A	Vancouver, B.C.
Youland, William E., B.A. (Bowdoin)	Biddeford, Me.

FACULTY OF LAW.

First Year.

Name.	Home Address.
Angers, August G., B.Sc. (Laval)	Beauceville, P.Q.
*Astrofsky, Harold	Montreal.
Boulanger, Joseph-Oscar L., B.A. (Laval)	St. Chs. de Bellechasse, P.Q.
Burke, Michael T., B.A. (Laval)	Montreal.
Cohen, Joseph	Montreal.
*Cooke, Herbert G	Westmount.
Engel, John A	Montreal.
Fisher, R. Eric, B.A	Montreal.

* Partial Student

NAME.	HOME ADDRESS.
Gerin-Lajoie, Henri	Mt. St. Louis College.
Hale, Charles A., B.A.	Granby, P.Q.
*Handfield, Louis A.	Montreal.
§Innes, Campbell.	Teeswater, Ont.
*Lafontaine, Ernest.	Montreal.
Lavery, Salluste	Montreal.
LeMesurier, C. Stuart, B.A.	Montreal.
Lepine, William H. E.	Ottawa, Ont.
Lipsey, Reuben H.	Montreal.
*McGoun, A. Forster.	Westmount.
McMahon, Edward G.	Ottawa, Ont.
*Malone, Thomas D. H.	Three Rivers, P.Q.
*Marcus, Marcel.	Montreal.
Mingie, George W., M.A.	Montreal.
Pedley, Hugh S., B.A.	Montreal.
Plimsoll, A. Reginald W., B.A.	Montreal.
Scott, William B., B.A. (Bishop's)	Quebec, P.Q.
Sinclair, R. V. Colville	Ottawa, Ont.

SECOND YEAR.

Archibald, Kenneth	Montreal.
Burnett, Ralph	Montreal.
Creswell, Harris J., B.A.	Lachute, P.Q.
Fisher, William C.	Gainsborough, Sask.
Fitch, Louis, B.A.	Quebec, Que.
Fleet, C. A. Robertson	Montreal.
Goldenberg, Bernard	Montreal.
Hastings, W. Roy, B.A.	Montreal.
Leblanc, Wilfrid R.	Kamouraska, P.Q.
Macdonald, James, M.A. (Queen's)	Glen Donald, Ont.
Merrill, Walter A., B.A. (Laval)	Montreal.
*Nicholson, Demetrius	Montreal.
Owens, T. Sargent, B.A. (Laval)	Montreal.
Shanks, Walter R. L., B.A.	Fitchburg, Mass.
Stockwell, Ralph F., B.A.	Danville, P.Q.
Walsh, Joseph C. B., B.A.	Montreal.
Waterston, Edward J., B.A.	Westmount.

THIRD YEAR.

Alexander, Maurice	Capetown, S.A.
Belanger, George, B.A. (Laval)	Montreal.
Cameron, Alexander G.	Winchester, Ont.
Cousins, George V., M.A.	Westmount.
Cushing, Dougall, B.A.	Montreal.
Goodstone, Isidore A.	Montreal.
Heward, Chilion G., B.A.	Montreal.
*Jacobs, Lyon	Montreal.
Jamieson, John S., M.A.	Vancouver, B.C.
McCallum, Orick B., B.A.	Montreal.
Penny, E. Goff T., B.A.	Montreal.
Tetreau, Maurice F.	Montreal.
Tulk, A. Edward	Vancouver, B.C.

* Partial Student. § Double Course Student.

THE GRADUATE SCHOOL.

Proceeding to the Degree of Master of Arts.

Name.	Home Address.
Boyle, Gertrude M., B.A.	Toronto, Ont.
Brittain, Isabel E., B.A.	Montreal.
Brooks, Murray G., B.A.	Indian Head, Sask.
Brown, W. Gordon, B.A., B.Sc.	Montreal.
Cliff, H. Welsford, B.A., B.D.	North Lunenburg, Ont.
Corbett, Edward A., B.A.	Redvers, Sask.
Curtis, W. E.	
Gray, Edwin H., B.A., B.D.	Montreal West.
Halpenny, Rev. W. T.	Montreal.
Harrison, Ralph D., B.A.	Montreal.
Hatcher, Albert G., B.A.	Bonavista, Nfld.
Healy, Walter J., B.A.	Montreal.
Huntley, H. W., B.A.	Vernon River Bridge, P.E.I.
Huxtable, Maggie, B.A.	Montreal.
Idler, S. May, B.A.	Montreal.
James, Miss Agnes S., B.A.	Montreal.
King, L. Mabel, B.A.	Montreal.
Kneeland, Warren A., B.C.L.	Montreal.
Logan, David C., B.A.	Montreal.
Macdiarmid, Miss Katie, B.A.	Montreal.
MacDonald, Dalraddy L., B.A.	La Guerre, P.Q.
McDonald, Jessie, B.A.	Montreal.
MacKenzie, John M., B.A.	Hartsville, P.E.I.
Maclean, Herbert B., B.A.	Pictou, N.S.
MacMillan, William, B.A.	Montreal.
Macnaughton, Ariel M., B.A.	Montreal.
McNeill, John T., B.A.	Elmsdale, P.E.I.
Naylor, R. Kenneth, B.A.	Farnham, P.Q.
Peron, S. E. H., B.A. (—)	Montreal.
Ryan, Esther L., B.A.	Mattawa, Ont.
Smillie, E. Arma, B.A.	Westmount.
Smith, Charles A., B.A.	Maxatawny, Pa.
Tremblay, J. Adelard, B.A.	Montreal.
Willis, F. Dorothy, B.A.	Toronto, Ont.
Wilson, A. Muriel, B.A.	Montreal.

Proceeding to the Degree of Master of Science.

Arkley, Lorne M.	Macdonald College.
Bates, Fred W., B.A.	Brandon, Man.
Brennan, C. Victor, B.Sc.	Summerside, P.E.I.
Bronson, Frederick E., B.Sc.	Ottawa, Ont.
Cameron, James S., B.Sc.	Stellarton, N.S.
Campbell, Edmund E., B.Sc.	Belmont, P.E.I.
Carmichael, Henry G., B.Sc.	Montreal.
Cheesborough, A. Gordon, B.Sc.	Westmount.
Clawson, Ernest E., B.Sc.	St. John, N.B.
Cole, L. Heber, B.Sc.	Montreal.
Dick, William J., B.Sc.	Nanaimo, B.C.
Dickieson, Arthur L., B.Sc.	Ottawa, Ont.
Ferris, Charles E., B.Sc. (Tennessee)	Knoxville, Tenn.

NAME.	HOME ADDRESS
Fetherstonhaugh, Edward P., B.Sc.	Winnipeg, Man.
Fox, C. Harry, B.Sc.	Winnipeg, Man.
Fyshe, Thomas M., B.Sc.	Montreal.
Gillespie, Peter, B.A., B.Sc. (Toronto)	Toronto, Ont.
Gray, Harold H., B.Sc. (Manchester)	Barnsley, Yorkshire, Eng.
Hammond, Harold S., S. A. (Toronto)	Ste. Anne de Bellevue, P.Q,
Haughton, Harold M. S., B.Sc.	Kingston, Jamaica.
Hayes, Albert O., B.Sc.	Granby, P.Q.
Lamb, Henry M., B.Sc.	Montreal.
Lathe, Frank E., B.A., B.Sc.	Lacolle, P.Q.
Meldrum, W. Buell, B.A.	Hull, Que.
Munn, D. Walter, B.Sc., M.A.	Vancouver, B.C.
Nicolls, Jasper H. H., B.Sc.	Westmount.
O'Neill, John J., B.Sc.	Port Colborne, Ont.
Piers, E. O. Temple, B.Sc.	Montreal.
Richardson, Lorne N., M.A.	Montreal.
Sullivan, Charles T., B.A. (Dalhousie)	Truro, N.S.
Thomas, Franklin, B.Eng. (Iowa)	Crossfield, Alta.
Weir, Douglas, B.Sc. (Toronto)	Ste. Anne de Bellevue, P.Q.
Wheeler, Nathaniel E., B.Sc. (—)	Manchester, N.H.
Yuill, Harvey H., B.Sc.	Truro, N.S.

PROCEEDING TO THE DEGREE OF DOCTOR OF PHILOSOPHY.

Abramowitz, H., A.B. (—)	Montreal.
Allen, T. B., M.A. (—)	Montreal.
Bancroft, J. Austen, M.A.	Montreal.
Boehner, Richard S., M.A.	Paradise, N.S.
Christie, Clarence V., B.Sc., M.A.	Westmount.
Gillis, Norman R., M.Sc.	Hartsville, P.E.I.
Gordon, Nathan, M.A.	Montreal,
Ince, J. W., M.A.	
Kirsch, Simon, M.A.	Montreal.
McLeod, Miss A. L., M.Sc.	Glace Bay, N.S.
Nicholson, John C., B.A.	Sherbrooke, P.Q.
Robertson, Arthur F., M.Sc.	Montreal.
Scrimgeour, Charles E., M.A. (St. Andrew's)	Montreal.
Shaw, Albert N., B.A.	Westmount, P.Q.
Tyndale, Orville S., M.A.	Montreal.
Villard, Paul, M.D.	Westmount.

AFFILIATED COLLEGES.

McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

(AT VANCOUVER).

(*In Arts*)

FIRST YEAR.

Anderson, Daniel J.
Austin, Edna E.
Baldwin, Sidney G.
Barrett, Harry A.
†Bodie, Isabel A.
Bolton, Grace A.
*Bowser, William J.
Busby, Eldon D.
Cairnes, Clive E.
Chadwick, Percy
*Chalmers, David A.
Crane, Harry J.
Davison, Frank C.
DePencier, Winnifred M.
DesBrisay, Eileen
DesBrisay, E. Merrill
Drost, Herbert M.
*Drysdale, Janet R.
†Dunbar, Robert G
England, Violet
Ford, George S.
Forster, David S.
Frame, William L.
*Gamble, James A.
Gilbert, Reginald H.
Grant, Harold D.
*Hall, Unina F.
Hardy, Netta
*Harvey, Annie E.
†Howell, Benjamin H.
*(3)Hyde, James.
Keenleyside, Alice M.
Kirkpatrick, Earl A. B.
Letvinoff, Annie
Lingle, Nettie C.
*Little, Katherine E.
†Macaulay, A. Howard
Macaulay, Vida I.
McKay, Angus H.
*Maclean, Archibald
McLean, John J. M.
*McNaughton, Harold A.
*MacSwain, Amelia A.
McTavish, Charles H
*Morgan, Clovis B.
Mude, Mona
Munro, Sadie H.
Mutch, Ethel J.
†Mutch, John T.
*Oana, Bernard F.
†Orme, Noreen M.
Otton, Marian
†Paddon, Amy W.
Perry, Rolf Selby.
*(2)Reid, Hugh S.
Rogers, C. H. A.
Sargent, Rey A.
Schwengers, Ada A.
Schwesinger, Gladys C.
Shuen, George Y. K.
*Wiegand, Elsa N.
*Wilgress, Leolyn D.
Wilson, Percy M.
*Wilson, Robert M.

SECOND YEAR.

Beckman, Elta M.
‡Buchanan, Christina
‡Busby, Edward M.
Dougan, Wilson
Greggs, Gladys E.
Harris, Clara E.
‡Holland, Richard R.
*McConnell, Robert A.
‡McCree, Walter T.
Mills, Annes V.
Muddell, Edward C.
‡Muttit, Leonard A.
Turnbull, John R.
Wilson, Ray H.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year, as well as in that where the name is found.

*Partial Student. †Conditioned Student. ‡Conditioned Undergraduate.

THIRD YEAR.

Boyd, James B.
Dixon, Margaret
*Letvinoff, Lena
Lindsay, Gordon
‡MacKeen, Mabel H.
‡Macleod, Hazel E.
Macleod, John V.
‡Meadows, Stanley D.
Selman, Gordon S.
‡Smith, Margaret A.
Thomas, Owen J.
Thompson, Andrew R.
Willett, Jean T.

(*In Applied Science*)

FIRST YEAR.

†Armytage, Maurice G.
*Barker, Culver M.
†Bell-Irving, Malcolm M.
Bell-Irving, Robert
†Burnett, Russell H.
Carson, John A.
Chave, Elmer H.
Creighton, Charles P.
Cunningham, Jeffree A.
Draper, Richard
Fisher, Aubrey S.
Hughes, Hamilton C.
*Ingram, George A. W.
†Lyche, Norman E.
McRae, John G.
†McRae, William D.
*O'Brien, Cotter
†Painter, Harry J.
†Sawers, Basil L.
*Stone Horace G.

SECOND YEAR.

Bagshaw, Frank
Chaffey, Charles R.
Cohen, Moise J.
Fleming, William R.
Irwin, Gifford M.
MacKinnon, Duncan A.
McGregor, Donald M.
McLellan, Robert B.
McNiven, John J.
Macrae, Lawrence P.
*Underhill, James T.
*Wade, M. Leighton

(AT VICTORIA.)

(*In Arts*

FIRST YEAR.

Adams, Vera Grace
Aird, Irene C.
Beattie, Hester E.
Caldwell, S. St. C.
Clay, Margaret J.
Finland, Elmer
Hartman, Leroy L.
Hendry, Myrtle M.
Hewlings, Gwendolyn N.
*Holmes, Lona B.
Jones, Nellie
LeClercq, Evelyn B.
†Marrion, Arthur H.
Moore, Joseph D.
Norris, Thomas G.
Roberts, Jessie C.
Robertson, Mary
Robinson, Henry L
*Staples, Mary
Tubman, Ruby
Williscroft, George

SECOND YEAR.

*Coates, Katie M.
Corry, Alice C.
Drury, Kenneth C.
Gordon, Daniel M.
Lehman, Edna
Logan, Mamie E.

---

*Partial Student. †Conditioned Student. ‡Conditioned Undergraduate.

1909-10

SUMMARY.

Students in Law		55
Students in Arts, McGill College :—		
Men—Undergraduates	187	
Conditioned	13	
Partial	78	
Women—Undergraduates	99	
Conditioned	4	
Partial	23	
Partial Students taking special courses for Teachers	134	
Students in Arts, McGill Univ. Coll. of B.C., Vancouver	92	
Students in Arts, " " " Victoria	27	
		657
Students in Applied Science :—		
Undergraduates	401	
Conditioned	39	
Partial	119	
Students in Applied Science, McGill University College of B.C., Vancouver	33	
		592
Students in Medicine :—		
Undergraduates	305	
Conditioned	19	
Partial	3	
		327
Students in the Graduate School		86
		1717
Deduct repeated in different faculties		34
Total		1683
Students in Macdonald College		329
Grand Total		2012

10 women

UNIVERSITY AND GRADUATES' SOCIETIES.

The Students' Society of McGill University.

(OFFICERS 1910-1911.)

President—John Harrison, Med. '11.
Vice-President—To be elected.
Treasurer—To be elected.
Secretary—A. B. Macdonald, B.A.

Executive Council.

John Harrison, Med. '11, Chairman.
George Weir, '11, (President Arts Undergraduates Society).
H. P. Ray, '11, (President Applied Science Undergraduates Society).
President elect of Undergraduates Society in Medicine
President elect of Undergraduates Society in Law
N. A. Thompson, Sci. '11, President The McGill Union
W. Matheson, Sci. '11, President The Rugby Football Club
G. S. Ramsey, Med. '12, President Hockey and Skating Club
J. S. Macleod, Med. '12, President The Track Club

The McGill Union.

(OFFICERS 1910-1911.)

Honorary President—E. B. Greenshields, Esq., B.A.
President—N. A. Thompson, Sc. '11.
Vice-President—G. A. Johnson, Sc. '12.
Secretary—S. S. Hawkins, Sci. '11.

Undergraduates' Literary and Debating Society.

(OFFICERS 1910-1911.)

Honorary President—Principal Peterson, C.M.G.
President—J. Clearihue, Arts '11.
Vice-President—A. K. Hugessen, Sci. '12.
Secretary—B. St. G. French, Arts '12.
Assistant Secretary—W. J. Pearse, Arts '12.
Treasurer—E. F. Newcombe, Arts '11.

Undergraduates' Society in Arts.

(OFFICERS 1909-1910.)

President—J. C. Reilly, '10.
Vice-President—George Weir, '11.
Secretary—A. A. McGarry, '13.
Treasurer—W. J. Pearse, '12.

Undergraduates' Society in Applied Science.

(OFFICERS 1910-1911.)

President—H. P. Ray, '11.
Vice-President—W. R. Smith, '11.
Secretary—J. P. McRae, '12.
Treasurer—J. W. McMahon, '12.
Assistant Secretary—H. D. Chambers, '13.

Undergraduates' Society in Law.

(OFFICERS 1909-1910.)

President—O. B. McCallum, '10.
Vice-President—W. A. Merrill, '11.
Secretary—R. E. Fisher, '12.
Treasurer—A. E. Tulk, '10.

Physical Society.

(OFFICERS (1909-1910.)

President—Professor H. A. Wilson, F.R.S.
Vice-President—Dr. H. L. Bronson.
Secretary-Treasurer—N. R. Gillis, M.Sc.
Executive Committee:—The above named officers with Dr. H. T. Barnes, Prof. N. N. Evans, and Prof. D. A. Murray.

Chemical Society.

(OFFICERS 1909-1910.)

President—Professor N. N. Evans.
Vice-President—Dr. R. F. Ruttan.
Secretary-Treasurer—Dr. F. M. G. Johnson.
Executive Committee—Dr. Ruttan, Professor Evans, Dr. Johnson, Dr. Stansfield, Dr. Bronson.

Medical Society.

(OFFICERS 1910-1911.)

Honorary President—Dr. W. F. Hamilton.
President—E. H. Falconer, '11.
Vice-President—J. Gillespie, '11.
Treasurer—L. G. Houle, '12.
Secretary—E. C. Levine, '13.
Assistant-Secretary—C. R. Joyce, '14.

Mining Society.

(OFFICERS 1910-1911.)

Honorary President—Dr. J. B. Porter.
President—C. G. Porter, '11.
Vice-President—G. E. Murray, '11.
Secretary-Treasurer—W. R. Flewin, '11.

Historical Club.

(OFFICERS 1910-1911.)

Honorary President—Dr. C. W. Colby.
President—A. A. Wanklyn, '11.
Vice-President—J. R. Donald, '11.
Secretary—B. St. G. French, '12.
Treasurer—W. N. Young, '12.

Electric Club.

(OFFICERS (1909-1910.)

Honorary President—Prof. L. A. Herdt.
Hon. Vice-President—C. V. Christie, B.Sc.
President—M. J. McHenry, '10.
Secretary—W. P. Smith, '11.
Treasurer—R. M. Scrivener, '11.

The Readers' Club.

(OFFICERS 1910-1911.)

Honorary President—Dean Moyse.
President—Miss M. Paterson-Smythe, '11.
Vice-President—W. G. Irving, '11.
Secretary-Treasurer—H. L. Johnson, '12.

Philosophical Society.

(OFFICERS 1910-1911.)

Honorary President—Dr. W. Caldwell.
President—J. F. Morris, '11.
Vice-President—J. W. Bridges, '11.
Secretary-Treasurer—W. P. Hughes, '12.

The Science '12 Debating Club.

(OFFICERS 1910-1911.)

Honorary President—Dr. H. T. Barnes.
President—R. L. Cummer.
Vice-President—J. W. McCammon.
Secretary-Treasurer—A. K. Hugessen.

The Science '13 Debating Club.

(OFFICERS 1910-1911.)

President—W. B. Gordon.
Vice-President—Eric Crewdson.
Secretary—C. C. Lindsay.
Treasurer—H. R. Mais.

Cercle Francais.

(OFFICERS 1910-1911.)

Honorary President—Dr. H. Walter.
President—W. M. Cherry, Arts '11.
First Vice-President—Réné Adam, Sci. '12.
Second Vice-President—Henry F. Angus, Arts '11.
Secretary-Treasurer—A. A. Wanklyn, Arts '11.

Societe Francaise.

(OFFICERS 1910-1911.)

Honorary President—Mlle Bianquis.
President—Miss M. F. Williams, '11.
Vice-President—Miss K. W. Lawrence, '12.
Secretary-Treasurer—Miss R. deL. LaRivière, '13.

Delta Sigma Society.

(OFFICERS 1910-1911.)

Honorary President—Miss Cameron.
President—Miss Marjorie Paterson-Smith.
Vice-President—Miss V. L. Brown.
Secretary-Treasurer—Miss Dorothy Duff, '13.

Young Men's Christian Association of McGill.

All members of McGill University, and of the affiliated Colleges, are welcomed as Associate Members; the active membership comprises those who are church members, or who subscribe to a simple statement of faith, and approve the objects of the Association.

The home of the Association is Strathcona Hall, which, in addition to affording ample accommodation for the work of the Association as a whole, provides residence for sixty-seven men.

Full particulars regarding the work of the Association are given in the annual Hand Book, and will also be supplied by the General Secretary of the Association.

(OFFICERS 1910-1911.)

Honorary President—Dr. Alex. Johnson.
President—T. W. Sutherland, Med. '12.
1st Vice-President—W. G. Irving, Arts '11.
2nd Vice-President—A. C. G. McLeod, Sci. '11.
Recording Secretary—H. F. Thomson, Arts '12.
Treasurer—W. C. Brotherhood, Sci. '11.
Assistant Treasurer—W. F. McConnell, Arts '13.
General Secretary—E. R. Paterson, B.A.
Assistant Secretary—F. H. Stanton, B.A.

Chairmen of Committees.

Missionary—T. E. Armstrong, Arts '11.
Religious Meetings—A. S. Christie, Arts '11.
Bible Study—A. C. G. McLeod, Sci. 11.
House—W. G. Irving, Arts '11.
Social—J. P. McRae, Sci. '12.
Reading Room and Library—T. E. Wilson, B.A., Sci. '11.
Finance—W. C. Brotherhood, Sci. 11.
New Student and Membership—G. A. S. Ramsey, Med. '13.
Directory—Geo. Weir, Arts '11.
Industrial Service—S. S. Hawkins, Sci. '11.

Young Women's Christian Association of McGill University.

(OFFICERS 1910-1911.)

Honorary President—Mrs. F. D. Adams.
President—Miss Winifred Wilson, '11.
Vice-President—Miss Beatrice Hadrill, '12.
Recording Secretary—Miss Winifred Mount, '13.
Corresponding Secretary—Miss Beatrice Ross, '12.
Treasurer—Miss Kathleen Wilder, '13.

Amateur Athletic Association.

(OFFICERS 1910-1911.)

President—K. W. Dowie, Sci. '10.
Vice-President—H. R. Little, Sci. '10.
Secretary—H. T. Douglas, Med. '12.

Royal Victoria College Athletic Club.

(OFFICERS 1910-1911.)

Honorary President—Miss Lichtenstein.
Honorary Vice-President—Miss Cartwright.
President—Miss Cladys Brown, '11.
Vice-President—Miss Eleanor Oughtred, '12.
Secretary-Treasurer—Miss Olive Reinhardt, '13.
Hockey Manager—Miss Jemima Greer, '11.
Tennis Manager—Miss Evelyn Craig, '11.
Basket Ball Manager—Miss Myra Ellison, '11.
Fancy Skating Manager—Miss Edith Paterson, '11.

Rugby Football Club.

(OFFICERS 1910-1911.)

Honorary President—Dean Adams.
Honorary Treasurer—Dr. J. M. Elder.
President—W. Matheson, Sci. '11.
Vice-President—S. Graham Rees, Arts '10.
Secretary—Geo. E. Murray, Sci. '11.
Treasurer—R. W. Digby, Med. '12.
Manager—H. R. Little, Sci. '10.
Captain—Dan P. Gillmor, Arts '11.

Association Football Club.

(OFFICERS 1910-1911.)

Honorary President—Professor H. M. Mackay.
President—A. B. Macdonald, Arts '10.
Vice-President—C. T. Crowdy, Med. '12.
Secretary—J. E. Bissett, Arts '11.
Treasurer—W. C. Fisher, Law '11.
Captain—A. S. Christie, Arts '11.

English Rugby Football Club.

(OFFICERS 1910-1911.)

Honorary President—Professor E. Brown.
President—G. G. Gibbins, Sci.
Vice-President—H. D. Brydone-Jack, Sci.
Secretary-Treasurer—E. G. H. Forman, Sci.
Captain—A. J. Motyer, Sci.

Track Club.

(OFFICERS 1910-1911.)

Honorary President—Dr. C. J. Macmillan.
Honorary Treasurer—Dr. F. W. Harvey.
President—J. S. Macleod, Med. '12.
Vice-President—G. M. Grundy, Med. '13.
Treasurer—W. E. G. Murray, Arts '12.
Secretary—G. H. MacDonald, '11.

Hockey and Skating Club.

(OFFICERS 1910-1911.)

Honorary President—Dr. C. J. Macmillan.
President—G. S. Ramsey, Med. '12.
Vice-President—A. E. Thompson, Med. '13.
Secretary—Donald Blair, Sci. '12.
Treasurer—A. J. Kelly, Sci. '11.
Manager—Allan M. Strang, Med. '14.
Captain—A. E. Sargent, Sci. '12.

Basket Ball Club.

(OFFICERS 1909-1910.)

Honorary President—Dr. H. T. Barnes.
President—H. M. Shephard, Med. '11.
Vice-President—H. F. Thomson, Arts '12.
Secretary-Treasurer—G. K. Hannah, Arts '11.
Manager—D. S. Forbes, Sci. '11.
Assistant Manager—F. A. Fortier, Sci. '11.

Boxing Club.

(OFFICERS 1909-1910.)

Honorary President—W. J. Jacomb, Esq.
President—H. D. Gougeon, Sci. '12.
Vice-President—T. W. Sutherland, Med. '12.
Secretary—J. A. McCarthy, Med. '11.
Treasurer—H. L. Edwards, Sci. '12.

Rifle Association.

(OFFICERS 1910-1911.)

Honorary President—Dr. Gregor.
Honorary Vice-President—Major Eaton.
Honorary Captain—Major Mitchell.
Captain—R. E. Hollinsed, Sci. '10.
Lieutenants—C. E. W. Hannington, Sci. '12; L. H. McKim, Med. '12.
Squad-Sergeants—W. M. McLeod, Arts '13; K. A. Reeder, Sci. '13; W. A. Hutton, Med. '13; A. F. Duguid, Sci. '11.
Secretary-Treasurer—J. H. Atkinson, Med. '13.

Fencing Club.

(OFFICERS 1910-1911.)

Honorary President—Principal Peterson, C. M. G.
President—A. S. C. Trench, Sci. '10.
Secretary-Treasurer—W. R. Flewin, Sci. '11.
Committee—Professor Nobbs, C. S. Burgess, E. F. Newcombe.

Swimming Club.

(OFFICERS 1909-1910.)

Honorary President—Dr. H. T. Barnes.
President—B. O. Smith, Sci. '12.
Vice-President—W. Pengelley, Sci. '11.
Secretary—S. Astrofsky, Med. '13.
Treasurer—Lee Smith, Med. '14.

Lawn Tennis Club.

(OFFICERS 1910-1911.)

Honorary President—Dr. H. L. Bronson.
President—A. M. Strang, Med.
Vice-President—W. J. Pearse, Arts.
Secretary-Treasurer—A. E. Sargent, Sci.

Wrestling Club.

(OFFICERS 1910-1911.)

Hon.-President—G. L. Guillet, B.Sc.
President—J. G. Anderson, Sci. '11.
Vice-President—L. W. Macnutt, Med. '11.
Secretary—W. R. Flewin, Sci. '11.
Treasurer—R. S. McBeath, Sci. '13.

Harriers' Club.

(OFFICERS 1910-1911.)

President—H. R. Little, Sci. '10.
Vice-President—A. E. Thompson, Med. '13.
Sec-Treasurer—E. H. Pope, Sci. '11.
Captain—W. E. G. Murray, Arts '12.

Cricket Club.

(OFFICERS (1909-1910.)

Honorary President—The Right Hon. Lord Strathcona and Mount Royal.
President—C. E. Moyse, LL.D.
Vice-President—A. R. Oughtred, K.C.
Captain—R. H. Malone, Med. '11.
Secretary-Treasurer—F. H. Allwood, Sci. '11.
Assist-Sec-Treasurer—D. S. Gough, Bank of Montreal (Hochelaga Branch).

Western Club of McGill University.

The Club has for its objects the furthering of the interests of McGill in the four Western Provinces and the helping of new students to McGill from these Provinces.

Students from Manitoba, Saskatchewan, Alberta or British Columbia coming to McGill for the first time are requested to communicate with the Secretary of the Club, care The Union, McGill University, Montreal.

(OFFICERS 1910-1911.)

Honorary President—Dr. J. L. Todd.
President—T. W. Sutherland, Med. '12.
Vice-President—J. B. Clearihue, Arts, '11.
Secretary-Treasurer—G. S. Eldridge, Sci. '11.
Assistant Secretary-Treasurers—James T. Wall, Med. '13; W. E. G. Murray, Arts '12.
Committee: British Columbia—J. D. Galloway, Sci. '11; Alberta—G. H. MacDonald, Sci. '11; Saskatchewan—H. C. Dixon, Med. '14; Manitoba—H. C. D. Briercliffe, Sci. '11.

Prince Edward Island Club of McGill University.

This club, organized during the session 1909-10, has three main objects:—to look after the welfare of new students coming to McGill from the Island; to encourage social relations; and to further the interests of McGill in the home province. Intending students would confer a favour by communicating with any member of the executive or with the local secretary, from whom full information regarding conditions at McGill, courses, expenses, etc., can be obtained,—from a Prince Edward Islander's point of view.

(OFFICERS 1910-1911.)

Hon. President—Dr. Andrew MacPhail.
President—Hugh C. Warburton, Arts '11.
Vice-President—W. G. Morris, Med. '13.
Secretary—R. S. McBeath, Sci. '14.
Treasurer—J. Mark Smith, Med. '14.
Local Secretary—Dr. Ira J. Yeo, Charlottetown, P.E.I.
Committee—Dr. C. J. MacMillan; J. W. Bridges, Arts '11; W. J. Grant, Med. '14.

McGill Nova Scotia and New Brunswick Club.

Hon. President—Professor H. M. Mackay.
President—Dan P. Gillmor, Arts '11.
Vice-President—R. S. L. Wilson, Sci. '11.
Secretary-Treasurer—R. R. Allingham, Arts '13.
Executive Committee:—A. R. M. MacLean, Arts '11; W. Roy Smith, B.A., Sci. '11; C. D. Robbins, Med. '14; J. L. Roy, Sci. '12.

Alumnae Association of McGill University.

(OFFICERS 1909.)

President—Mrs. Douglas McIntosh.
Vice-Presidents—Miss Hall; Miss Brittain; Miss Hurlbatt; Miss K. Campbell.
Rec.-Secretary—Mrs. Hodges.
Asst. Rec.-Secretary—Miss C. Cheesbrough.
Corres. Secretary—Miss M. K. McCally.
Asst. Corres. Secretary—Miss R. Mowatt.
Treasurer—Miss M. King.
Asst. Treasurer—Miss E. P. Simpson.

Ottawa Valley Graduates' Society.

(OFFICERS 1910.)

Honorary President—Sir James Grant, K.C.M.G.
President—Dr. J. L. Chabot.
1st Vice-President—W. J. Dick, B.Sc.
2nd Vice-President—Dr. C. H. Higgins.
3rd Vice-President—J. B. McRae, B.A.Sc.
Treasurer—Dr. C. E. Preston.
Secretary—Sidney C. Ells, B.Sc., Geological Survey.
Council—Mrs. J. E. Craig, B.A.; Miss G. Sauvalle, B.A.; Miss M. Masson, B.A.; Dr. J. G. Scott; L. G. Denis, B.Sc.; Capt. R. C. B. Corriveau, B.Sc.

New York Graduates' Society.

(OFFICERS 1910.)

President—M. Casewell Heine, B.A., LL.B.
1st Vice-President—George Massey.
2nd Vice-President—Dr. W. B. Gibson.
Treasurer—Gordon Gibson, M.D.
Secretary—F. G. Wickware, B.A., B.Sc., The Engineering Magazine, 140 Nassau St., New York City.
Governors—Class of 1911: Dr. F. H. Miller and R. A. Gunn, B.A.Sc. Class of 1912: Dr. C. J. Patterson and H. A. Coussirat, B.Sc. Class of 1913: T. M. McLeod, B.A.Sc. and Dr. L. M. Ryan.

McGill Alumni Association of Chicago.

President—Dr. Andrew Stewart.
1st Vice-President—Dr. S. Burland.
2nd Vice-President—Dr. N. Kerr.
Secretary-Treasurer—Dr. C. H. Long, 36 Washington St., Chicago, Ill.
Councillors—Dr. E. J. Evans; Dr. D. R. MacMartin; Dr. Edward Christie.

McGill Graduates' Society of Honan, China.

(OFFICERS 1910.)

President—Wm. McClure, B.A., M.D.
Vice-President—P. C. Leslie, M.D.
Secretary-Treasurer—W. J. Scott, B.A., M.D., Hwai Chang Fu, N. Honan, China.

McGill Graduates' Society of Manitoba.

Honorary Patron—The Right Hon. Lord Strathcona and Mount Royal.
Honorary President—J. E. Schwitzer, B.A.Sc.
President—C. A. MacKenzie, M.D.
Vice-President—W. A. Duff, B.Sc.; Harvey Smith, M.D., C. H. Mansur, B.A., B.C.L.; F. W. Torrance, D.V.S.
Secretary—F. W. Anderson, B.Sc.
Treasurer—A. R. Dufresne, B.A.Sc.
Executive Committee—John Graham, B.A.; E. P. Fetherstonhaugh, B.Sc.; C. C. Gwyn; D. McKay, M.D.; C. E. Fortin, M.D.; George Northwood; R. K. McClung, D.Sc.; W. E. Murphy, B.Sc.; J. A. Heaman, B.Sc.; J. A. Flanders, B.A.

McGill Graduates' Society of British Columbia.

(OFFICERS 1909.)

Honorary President—S. J. Tunstall, M.D., C.M.
President—W. B. Burnett, M.D.
Vice-Presidents—W. P. Ogilvie, B.C.L.; H. Robertson, M.D.; J. W. Woods, M.D.; W. Dickson, M.D.; S. J. Blaylock, M.E.; M. Sullivan, B.Sc.
Secretary-Treasurer—A. E. Foreman, B.Sc., 1105 Haro St., Vancouver.
Executive—G. W. Boggs, M.D.; L. Robertson, M.A.,; P. A. McLennan, M.D.; F. S. Keith, B.Sc.; A. L. Kendall, M.D.; D. McTaggart, B.C.L.

McGill University.

SESSIONAL EXAMINATIONS, 1909-1910.

Faculty of Arts.

PASSES, HONOURS AND PRIZES.

PASSED FOR THE DEGREE OF B.A.

IN HONOURS.

(In alphabetical order.)

First Rank.

Brower, Margaret N.
Cockfield, Henry R.
Cruickshank, Eleanor
deSola, Bram
Elder, Aubrey H.
Mabon, J. Bertram
McKinnon, Annie M.
Macnaughton, Gordon F.
Mariotti, Humbert C. G.
Paterson-Smyth, Charles
Reilly, J. Clark
Thorne, Oliver
Wood, Frederic G. C.

Second Rank.

Green, Cecelia R.
Seymour, Louise E.

Ægrotant.

Couture, Réné P.
Trenholme, Katherine T.

PASSED FOR THE DEGREE OF B.A.

IN THE ORDINARY COURSE.

(In order of merit. Students of equal standing are bracketed together.)

Class I.

McWhinney, Margaret O.
Murphy, A. Winnifred
Badgley, E. Ruth
Murchison, Vivian G. D.

Class II.

Carr, Robena M.
Powles, Percival S. C.
Lamb, Elvie D. M.
Lawlor, Emma G.
Brehaut, Cora
Mount, B. Ruth
Plaisted, Lilian D. W.
Mackinnon, Marion G. } equal.
Miller, Clare B. } equal.
Rosenberg, Hannah N. } equal.
Bennetts, Edith E.
Tippet, Richard S.
Phipps, Roy G.
Taylor, Margaret
McEwen, Helen F. } equal.
Prentice, Norman } equal.
Gordon, J. Thom
Brownlee, Hazel.
Baylis, Dora C.
Robinson, Bernard S.
Manning, Viril Z. } equal.
Sutherland, Francis C. } equal.
Wilson, Percy D. } equal.
Skaling, Arthur C.
Solomon, Edward
Stanton, Frank H.

Class III.

Cushing, Charles
Hutchison, S. Arthur
Macdonald, Alex. B.
McMurtry, Alex. O.

DOUBLE COURSE IN ARTS AND APPLIED SCIENCE.

Class I.

None.

Class II.

Armstrong, John D.

Class III.

McGannon, Edward M.
Simpson, Alan Cradock.

DOUBLE COURSE STUDENTS IN ARTS AND MEDICINE WHO WILL BE QUALIFIED TO OBTAIN THE DEGREE OF B.A. IN JUNE, 1910, ON COMPLETING THEIR MEDICAL YEAR.

Bruneau, I. Edgar
Digby, Reginald B.
Ramsay, Irving D.
Ross, S. Graham

FOURTH YEAR (GRADUATING CLASS)

HONOURS.

(Subjects arranged alphabetically.)

1. IN CLASSICS.

Paterson-Smyth, Charles....First Rank Honours and Chapman Gold Medal.
Cockfield, Harry R.....First Rank Honours.
Seymour, Louise E.....Second Rank Honours.

2. IN ECONOMICS AND HISTORY.

Couture, Réné P.....*ægrotat* with Honours.

3. IN ECONOMICS AND POLITICAL SCIENCE.

deSola, Bram C.....First Rank Honours.
Mariotti, Humbert C. G....First Rank Honours.
Elder, Aubrey H.....First Rank Honours.

4. IN THE ENGLISH LANGUAGE AND LITERATURE.

Wood, Frederic G. C.....First Rank Honours and Shakspere Gold Medal.
Brower, Margaret N.....First Rank Honours.
Green, Cecelia R.....Second Rank Honours.

5. IN FRENCH AND ENGLISH.

Macnaughton, Gordon F....First Rank Honours and Governor-General's Gold Medal.
Trenholme, Katherine T....*ægrotat* with Honours.

6. IN HISTORY AND ENGLISH.

Reilly, J. Clark.....First Rank Honours.
Thorne, Oliver.....First Rank Honours.

7. IN HISTORY AND ECONOMICS.

Cruickshank, E. J.....First Rank Honours.

8. IN LATIN AND FRENCH.

McKinnon, Annie M.....First Rank Honours.

9. IN MATHEMATICS AND PHYSICS.

Mabon, J. Bertram.....First Rank Honours and Anne Molson Gold Medal.

FIRST RANK GENERAL STANDING.

B.A. COURSE.

McWhinney, Margaret O....Special Certificate.
Murphy, A. Winnifred.....Special Certificate.
Badgley, E. Ruth.....Special Certificate.
Murchison, Vivian G. V....Special Certificate.

THIRD YEAR.

HONOURS.

(Subjects arranged alphabetically.)

1. IN CHEMISTRY.

Maclean, A. Reginald.....First Rank Honours.
Lochhead, Allan G.....Second Rank Honours.

2. IN CLASSICS.

King, Alfred N.....Second Rank Honours.

3. IN THE ENGLISH LANGUAGE AND LITERATURE.

Warburton, Hugh C.....Second Rank Honours.
Macnaughton, Jean L. M...*ægrotat* with Honours.

4. IN ENGLISH AND FRENCH.

Hammond, Doris J. S.....Second Rank Honours.

5. IN ECONOMICS AND POLITICAL SCIENCE.

Angus, Henry F.....First Rank Honours and First Mackenzie Scholarship.
Clearihue, Joseph B.....First Rank Honours and Second Mackenzie Scholarship.
Currie, George S.....First Rank Honours.
Tannenbaum, Lawrence....Second Rank Honours.
Cook, Geoffrey H.....Third Rank Honours.
Newcombe, Edmund F.....Third Rank Honours.

6. IN HISTORY.

Dewey, A. Gordon.....First Rank Honours.

7. IN HISTORY AND ENGLISH.

Weir, George.....First Rank Honours.
Murchison, Hazel I.....First Rank Honours.
Irving, W. Gordon.....Second Rank Honours.

8. IN LATIN AND FRENCH.

GRIMES, Evie M.....First Rank Honours.

9. IN MATHEMATICS AND PHYSICS.

Paterson-Smyth, Marjorie...First Rank Honours. } equal.
Maass, Otto.....First Rank Honours. }
Scott, A. A.....Second Rank Honours.

10. IN MODERN LANGUAGES.

Schafheitlin, Anna.....First Rank Honours.

PRIZES.

Chandler, Rena.....Annie McIntosh Prize

PASSED THE THIRD YEAR EXAMINATIONS.

(1) FOR COURSE LEADING TO B.A.

(Arranged in alphabetical order.)

Angus, Armstrong (*s*), Beckwith (*s*), Bissett (*s*), Boyd‡, Bridges, Chandler, Cherry, Clearihue, Cook, Craig, Creaghan, Cunningham, Curry, Davidson, Dewey, Dixon (M.) (*s*)‡, Donald, Dowd, Ellison, Fletcher, Gillmor, Greer, Grimes, Hammond, Hannah, Hayden, Heney, Herschorn (*s*), Hill (*s*), Howell (*s*), Hulburd, Irving, Kerry (*s*), King, Knowling, Lariviere, Lindsay‡, Livinson, Lochhead, McKeen (*s*)‡, MacLean, Macleod (H. E.), (*s*)‡, Macleod (J. V.)‡, MacQueen, Maass, Meadows (*s*)‡, Morris, Moyse, Murchison, Newcombe, Paterson, Paterson-Smyth, Reid, Roberts (*s*), Robertson, Schafheitlin, Scott, Selman‡, Smith‡, Tannenbaum, Thomas (*s*)‡, Thompson‡, Van Vliet, Wanklyn, Warburton, Weir, Willett‡, Williams, Wilson.

ægrotant.—Dixon, Macnaughton, McGoun

(2) FOR COURSE LEADING TO B.SC.

Mewburn (*s*).

SECOND YEAR.

HONOURS.

IN MATHEMATICS AND PHYSICS.

Couture, Armand P.....First Rank Honours.

ADVANCED SECTIONS.

FRENCH.

Class I.

Goldblatt
Chenier

(*s*) Supplemental in one subject.
‡ McGill University College of B.C., Vancouver.
† " " " " Victoria.

Class II.

Bennett.
Stewart (M. A. R.).
Kert.
Cronin and Kneeland, equal.
Budyk.

Class III.

Mathewson and Walker (M. G.), equal.
Muhlstock.

PHILOSOPHY.

Class I.

Johnson
Mathewson.

Class II.

Roback.
French.
Davidson

Class III.

None.

PRIZES.

French, Bertram St. G. ... } Coster Memorial Prize.
Pearse Walter J. ..... }
McVittie, Thomas J. .....Neil Stewart Prize.

PASSED THE SECOND YEAR EXAMINATIONS.

(1) COURSE LEADING TO B.A.

Class I.

Pearse
French
Murray
Longworth

Class II.

Goldblatt
Gordon†
Young
Manny
Bennett
Smith
Harris‡
Corry†
Buchanan‡
Budyk

‡ McGill University College of B.C., Vancouver.
† " " " " Victoria.

Muttit‡
Cockfield and Lawrence, equal
Gronin and Johnson and McCree‡, equal
Freeman
McVittie and Walker (M. G.), equal
James (*s*)
Babcock
Going
Brown
Stewart (M. A. R.)
Ross
Beckman‡ and McInnis and Mills‡, equal
Kneeland

Class III.

Braeuer
Holland‡
Percival
Mathewson (A.)
Muddell (*s*)‡
Lehman†
Wilkes (*s*)
Allan
Youngheart
Dougan‡ and Greggs‡, equal
Hatcher
Pennington (*s*)
Walker (H. F.)
McLaurin (B. M.)
Oughtred
Coates (*s*)†
Thomson (H. F.), (*s*)
Stalker (*s*)
Davidson (*s*)
Chénier (*s*) and Turnbull (*s*)‡ and Younger (L. F.), equal
Quigley (*s*)
Robinson (*s*)
Kert (*s*)
Lindsay (*s*) and Muhlstock (*s*) equal
Henry (*s*)
McLaurin (C. E.), (*s*)
Dumaresq (*s*)
Boright (*s*)

(2) COURSE LEADING TO B.SC.

Class I.
None.

Class II.
None.

Class III.
Mathewson (W.).

(*s*) Supplemental in one subject.
‡ McGill University College of B.C., Vancouver.
† " " " " Victoria.

FIRST YEAR.

ADVANCED SECTIONS.

IN MATHEMATICS.

Class I.
Miller.
Silver.
Bruneau.

Class II.
Larivière.
Bieler.

Class III.
Parkes.

IN FRENCH.

Class I.
Bruneau.
Rivard.
Larivière.

Class II.
LeBel and Duff and MacSween, equal.
Henry.
McGarry.

Class III.
Honey.
Molleur.
Millman.
Maynard.

IN LATIN.

Class I.
Corbett.
Macnaughton.

Class II.
Stewart (J. G.).

PASSED THE FIRST YEAR EXAMINATIONS.

(1) FOR COURSE LEADING TO B.A.

Class I.
Corbett
Dewey
Stewart (J. G.)
Macnaughton
Bruneau

Fritz
Robinson (J)
Fisher
Duff and Morison (M. I.), equal
Mount
Silver
Miller

Class II.

MacSween
Chaffey
Morrison (C. K.)
Hardy‡
Goldbloom
Pedley
Dunbar‡ and Larivière, equal.
Cairnes ‡
Aird†
Forster‡
Wilson
Armstrong and Leavitt, equal
McGarry
Atkins.
Brown (F. R.)
Bieler
Smith
Tubman (*s*)†
Davison‡ and Reinhardt, equal
Nicholson
DesBrisay (E. M.) (*s*)‡
Keenleyside (*s*)‡
Cameron (A. W.)

Class III.

Moore†
Bolton‡ and Lovett and Norris (*s*)†, equal
Church
Roberts†
Adams†
Caldwell (*s*)† and Leonowens (*s*) and Lofthouse, equal
Gall
Parkes
Common
Penny and Williscroft (*s*)†, equal
Bridgman
Matheson
Beattie (*s*)†
Letvinoff (A.)‡
Robertson (*s*)†
Chadwick‡
Henry
Kirkpatrick (*s*)‡

(*s*) Supplemental in one subject.
‡ McGill University College of B.C., Vancouver.
† " " " " Victoria.

Hewlings (*s*)†
Hodgson
Schwesinger (*s*)‡
Farthing (*s*)
Heaton (*s*)
Honey (*s*)
Jeakins (*s*)
Hecht
Allingham (*s*)
Shanley (*s*)
McLeod (*s*) and Shearing (*s*), equal
Williams (*s*)
Barrett (s)‡
Struthers (*s*)
Shuen (*s*)‡

ægrotat.
DesBrisay (Eileen).

(2) FOR COURSE LEADING TO B.SC.

Class I.
None.

Class II.
None.

Class III.
Duggan (*s*).

STANDING IN THE SEVERAL SUBJECTS.

FOURTH YEAR.

BOTANY (SYSTEMATIC).

Class I.—None. *Class II.*—None. *Class III.*—Sutherland.

ECONOMICS.

(1) Public Finance.

Class I.—None. *Class II.*—Cushing. *Class III.*—None.

(2) Transportation.

Class I.—None. *Class II.*—Wilson. *Class III.*—None.

(3) Economic Theory.

Class I.—None. *Class II.*—Tippet, Plaisted. *Class III.*—Baylis.

EDUCATIONAL PSYCHOLOGY.

Class I.—None. *Class II.*—Reilly, Murphy, Sutherland. *Class III.*—Taylor; Bennetts and McMurtry, equal; Macdonald (A. B.).

(*s*) Supplemental in one subject.
‡ McGill University College of B.C., Vancouver.
† " " " " Victoria.

HISTORY OF EDUCATION.

Class I.—Murphy. *Class II.*—Bennetts and Sutherland, equal; Taylor, Mabon. *Class III.*—Reilly, Macdonald (A. B.), McMurtry.

ENGLISH COMPOSITION (1).

Class I.—Macnaughton; Phipps and Thorne, equal; Rosenberg, Brower; Badgley and Wood, equal; Green. *Class II.*—Brownlee and Carr, equal; Reilly, Robinson, Murchison, Miller, McWhinney, McEwen; Macdonald and McMurtry, equal; Stanton, Mackinnon (M. G.) *Class III.*—Runnells.

ENGLISH COMPOSITION (2).

Class I.—Plaisted, Brehaut, Tippet, Mount, Lamb; Baylis and Digby, equal. *Class II.*—Murphy; Bennetts and Taylor, equal; Lawlor; Douglas and Manning and Prentice and Wilson, equal; Cushing and Powles and Ross, equal; Gordon and Skaling and Sutherland, equal. *Class III.*—Armstrong; Bruneau and Hutchison and Solomon, equal; Ramsay, McGannon, Rennoldson.

ENGLISH LITERATURE.

(1) English Prose Fiction.

Class I.—McDonald (Jessie), B.A., Green, Brower, Reilly; Badgley and Brownlee, equal; Wood. *Class II.*—McWhinney; Carr and McEwen equal; Murchison, Phipps, Rosenberg, Thorne, Mackinnon. *Class III.*—McMurtry, Robinson, Macdonald (A. B.), Miller, Runnells.

(2) Nineteenth Century Poets.

Class I.—McDonald (Jessie), B.A., Reilly, Brehaut, Phipps; Badgley and Thorne, equal; Murchison; Brower and McWhinney, equal. *Class II.*—Stanton, Robinson; Green and McEwen, equal; Rosenberg; Carr and Miller, equal; Prentice, Baylis. *Class III.*—Roberts, Van Vliet, McMurtry, Runnells, Macdonald (A. B.), Creaghan, Ellison.

(3) American and Canadian Literature.

Class I.—Macnaughton (G. F.), Wood, Corbett, Brower; Macnaughton (J.) and Murchison, equal. *Class II.*—Warburton, Weir, McWhinney, Green, Moyse, Baylis, Brownlee, Irving. *Class III.*—None.

(4) Comparative Literature.

Class I.—Macnaughton (G. F.), Wood, McDonald (Jessie), B.A., Brower. *Class II.*—Warburton, Macnaughton (J.), Green and Reilly, equal. *Class III.*—Stanton, Hammond.

FRENCH.

Class I.—Bennetts. *Class II.*—Taylor, Plaisted. *Class III.*—Brownlee, Prentice, Hutchinson.

FRENCH (Special Course).

Class I.—deSola; Elder and Mariotti, equal. *Class II.*—None. *Class III.*—None.

GEOLOGY.

Class I.—Manning, Mackinnon (M. G.). *Class II.*—Brehaut, Mount. *Class III.*—None.

GEOLOGY (Continuation Course.)

Class I.—None. *Class II.*—Hutchinson. *Class III.*—None.

GERMAN.

Class I.—None. *Class II.*—Bennetts and Prentice, equal; Taylor. *Class III.*—Sutherland.

GREEK.

Class I.—Cockfield, Murphy, Paterson-Smyth. *Class II.*—Powles and Seymour, equal; Tippet. *Class III.*—None.

HISTORY.

Class I.—McWhinney, Murchison, Lawlor; Bayiis and Carr and Powles, equal; Badgley and Plaisted, equal; Phipps; Brownlee and Rosenberg, equal; Robinson. *Class II.*—None. *Class III.*—None.

HISTORY (Honour).

Class I.—Lamb, Cruickshank and Dewey and Murchison, equal; Weir, Thorne, McEwen and Reilly, equal; Miller, Irving. *Class II.*—None. *Class III.*—None.

LATIN.

Class I.—Paterson-Smyth, Cockfield and McKinnon (A. M.), equal; Mount, Murphy, Seymour. *Class II.*—Brehaut. *Class III.*—None.

LAW.

(1) Commercial Law.

Class I.—Prentice. *Class II.*—None. *Class III.*—None.

(2) Roman Law.

Class I.—Skaling. *Class II.*—Cherry. *Class III.*—Cook, Newcombe.

(3) Constitutional Law.

Class I.—None. *Class II.*—Knowling, Wilson. *Class III.*—Armstrong (J. D.) and McGannon, equal.

LOGIC.

Class I.—None. *Class II.*—Gordon. *Class III.*—None.

MATHEMATICS.

Class I.—None. *Class II.*—Lawlor. *Class III.*—None.

PHILOSOPHY (History of)

Class I.—Robinson, Powles, Stanton, Murchison and Sutherland, equal. *Class II.*—Wilson, McKinnon (M. G.), Mount, Tippet, Miller. *Class III.*—McMurtry, Cushing.

PHILOSOPHY (Greek).

Class I.—None. *Class II.*—None. *Class III.*—Macdonald (A. B.).

PHYSICS.

Class I.—Maass, Paterson-Smyth (Marjorie), Skaling, Mannning, Scott. *Class II.*—Creaghan. *Class III.*—None.

POLITICAL SCIENCE.

Class I.—Carr and Lamb, equal; Badgley and Manning, equal. *Class II*—Phipps, Lawlor, Stanton, Skaling. *Class III.*—McEwen, Rosenberg, Solomon, Wilson, Gordon.

SYRIAC.

Class I.—Gordon. *Class II.*—None. *Class III.*—None.

ZOOLOGY (Comparative Embryology.)

Class I.—Solomon. *Class II.*—None. *Class III.*—None.

THIRD YEAR.

CHEMISTRY.

Class I.—Maass, Scott. *Class II.*—MacQueen; Hill and Solomon, equal. *Class III.*—Davidson.

CHEMISTRY (Organic—half course.)

Class I.—None. *Class II.*—Martin; Cherry and Heurtley, equal. *Class III.*—None.

ECONOMIC THEORY.

Class I.—None. *Class II.*—Bridges, Wanklyn. *Class III.*—Ellison.

EDUCATIONAL PSYCHOLOGY (half-course).

Class I.—None. *Class II.*—MacQueen, Robertson. *Class III.*—Hulburd and Reid, equal; Hayden and Wilson, equal; VanVliet.

HISTORY OF EDUCATION (half-course).

Class I.—Murchison and Paterson-Smyth, equal. *Class II.*—Schafheitlin, Hammond, Olmstead. *Class III.*—Hayden, Reid, Hulburd, Wilson, MacQueen, Greer, VanVliet, Robertson.

ENGLISH COMPOSITION (1).

Class I.—Warburton, Weir, Hammond and Raynes, equal; Irving and Macnaughton, equal; Murchison, Browne. *Class II.*—Bernstein and Martin and Thompson‡, equal; MacEwen; Craig and Letvinoff‡ and Willett‡, equal; Lindsay‡; Moyse and Reid and Wilson, equal; Livinson, Herschorn; Armstrong and Beckwith, equal. *Class III* Selman‡, Hulburd; Macleod (H. E.)‡ and McLeod (J. V.)‡, equal; Knowling, Smith‡, Larivière, Boyd,‡ Millman, Thomas‡, Dixon‡, McKeen‡.

ENGLISH COMPOSITION (2).

Class I.—Bridges, Chandler, Bissett, McQueen; Cunningham and Wanklyn, equal; Olmstead and Paterson, equal. *Class II.*—Williams; Heney and Howell, equal; Fletcher and Gillmor and VanVliet, equal; Donald and Ellison (M. K.), equal; Hayden, Greer. *Class III.*—Eberts, Cherry; Creaghan and Hannah and Morris, equal; Christie, Hill, Jacobs, McGoun (G. G.) Roberts, Argue.

ENGLISH LITERATURE.

(1) Eighteenth Century.

Class I.—Weir, Murchison, Warburton; Bernstein and MacEwen and Martin, equal; Irving. *Class II.*—Macnaughton; Reid and Wilson, equal; Raynes; Lindsay‡ and Moyse, equal; Knowling and Willett‡, equal; Browne and Livinison, equal. *Class III.*—McLeod (J. V.)‡ and Smith‡, equal; Craig and Selman‡, equal; Larivière, Hulburd, Letvinoff‡; Herschorn and Thompson‡, equal; Boyd‡; Armstrong and Beckwith and Millman and Meadows‡, equal.

(2) Shakspere.

Class I.—Chandler and Lindsay‡, equal; Weir; Brehaut and Murchison, equal. *Class II.*—Warburton, Bernstein; Hammond and Lamb, equal; MacEwen; McKinnon and Reid and Willett‡, equal; Armstrong and Craig, equal. *Class III.*—McLeod (J. V.)‡, Browne (A. G.); Letvinoff‡ and Livinson, equal; Thompson‡, McGannon, Creaghan and Greer and Irving, equal; Browne (M. M.) and McKeen‡, and Olmstead, equal; Boyd‡ and Hulburd and VanVliet, equal; Larivière and Macleod (H. E.)‡, equal; Selman‡ and Wilson, equal; Ellison and Roberts and Smith‡ and Thomas‡, equal; Beckwith and Dixon‡ and Hutchinson and Martin and Meadows‡, equal.

‡ McGill University College of B.C., Vancouver.

FRENCH.

Class I.—Boucher and Larivière, equal; Williams. *Class II.*—Lindsay‡, Wanklyn, Hayden. *Class III.*—Gillmor; McLeod (J. V.)‡ and VanVliet, equal; Boyd‡, Willett‡, Greer, Hannah.

GEOLOGY.

Class I.—Chandler, Patterson, Bridges; Hayden and Wanklyn, equal; McQueen, Gillmor, Howell, Armstrong, Eberts; Fletcher and Heney and Olmstead, equal. *Class II.*—Martin and Reid and Wilson, equal; Browne (A. G.), Ellison; Beckwith and Craig, equal; Lochhead; Hulburd and Williams, equal; Hannah. *Class III.*—Morris and Wadleigh, equal; Greer, Robertson, Larivière.

GERMAN.

Class I.—None. *Class II.*—Williams, Cherry. *Class III.*—None.

GREEK.

Class I.—None. *Class II.*—Paterson, King. *Class III.*—Morris, Howell.

HEBREW.

Class I.—Nicholson. *Class II.*—None. *Class III.*—None.

HISTORY.

Class I.—Dewey, Murchison, McCuaig; Donald and Weir, equal; Cunningham and Craig, equal; Tannenbaum, Currie, Hannah; Irving and Jacobs, equal; Livinson, Olmstead; Heney and Raynes, equal; Browne (G.) and Browne (M.), equal; Knowling, Hill, Herschorn. *Class II.*—Millman. *Class III.*—None.

SPECIAL EXAMINATION IN HISTORY.

Class I—Moyse.

LATIN.

Class I.—Grimes. *Class II.*—King, Thomas‡; Chandler and McLeod (J. V.)‡ and Paterson, equal; Thompson‡. *Class III.*—Smith‡, Macleod (H. E.)‡, Boyd‡, McKeen‡, Letvinoff‡, Selman‡, Meadows‡ and Robertson, equal; Dixon‡.

MATHEMATICS.

Class I.—None. *Class II.*—None. *Class III.*—Cunningham, Cushing.

MINERALOGY.

Class I.—MacLean. *Class II.*—None. *Class III.*—Davidson.

‡ McGill University College of B.C., Vancouver.

MORAL PHILOSOPNY.

Class I.—Bridges. *Class II.*—Armstrong, Eberts, Dowd. *Class III.*—Fletcher, Christie; Morris and Proctor, equal.

PHYSICS (Electrical Theory).

Class I.—Paterson-Smyth, Maass. *Class II.*—Heurtley. *Class III.*—None.

PHYSICS.

Class I.—Cunningham and Maclean, equal. *Class II.*—Donald and Thomas‡, equal; Bissett and Gerin-Lajoie, equal; Lochhead, Thompson‡, Meadows‡. *Class III.*—Willett‡, Lindsay‡, Davidson, Dixon‡, McKeen‡, Selman‡, Smith‡, Macleod (H. E.)‡.

POLITICAL SCIENCE.

Class I.—Bissett, Donald, Moyse. *Class II.*—Dewey, Fletcher, Cunningham and Gillmor equal; Greaghan, Knowling; Bernstein and McGoun (G. G.) equal. *Class III.*—Martin, Heney, Jacobs, Gardiner, Livinson, Cherry, Herschorn.

ZOOLOGY.

Class I.—None. *Class II.*—Mewburn. *Class III.*—None.

SECOND YEAR.

(1) ANIMAL BIOLOGY (Christmas, 1909).

Class I.—Martin, Eberts. *Class II.*—Goldblatt, Quigley, Mathewson Hutchinson. *Class III.*—Muhlstock, Allnutt.

(2) PLANT BIOLOGY.

Class I.—Goldblatt, Martin, *Class II.*—Eberts and Mathewson (W.), equal; Dean, Quigley, Muhlstock. *Class III.*—Hutchinson.

CHEMISTRY.

Class I.—Couture, Martin, Goldblatt, Muddell‡, Budyk, Wilkes. *Class II.*—Eberts and Walker, equal; Allan and Greggs‡, equal; Oughtred, Kneeland, Mathewson (W.). *Class III.*—Dean, Dumaresq, Younger (L.), Scott, Beckman‡, Dougan‡, Younger (M.).

‡ McGill University College of B.C., Vancouver.

ENGLISH COMPOSITION.

Class I.—Longworth, Smith, Harris‡, Murray, McCree‡, French, Manny, Budyk and Johnson and Pearse, equal; Babcock; Corry† and Davidson and Freeman and Muttit‡ and Pennington and Ross and Walker (M.), equal. *Class II.*—Gordon† and Gronin and McInnis and Young, equal; Holland‡; Couture and Stalker,equal;Cockfield and Percival, equal; Beckman‡ and Roback, equal; Kneeland, Hughes; Hall and Lawrence, equal; Bennett and Brown and Robinson and Turner, equal; Henry and McLeod and McVittie, equal; Armour and Buchanan‡ and Mathewson (W.), equal; Dean and Fiske and Goldblatt, equal; Muhlstock; Allan and Mathewson (A.) and Wilkes, equal. *Class III.*—Going and Thompson(A.K.), equal; Turnbull‡; Dumaresq and Mick and Younger (L.), equal; McLaurin (C.) and Mills‡ and Mitchell, equal; Cameron and Campbell, equal; Braeuer and Coates† and Stewart (M. A.) and Thompson (H.T.), equal; Chênier and Lehman† and McLaurin,(B.), equal; Greggs‡ and Hatcher and Quigley and Raynes and Reid‡ and Walker (H.), equal; Oughtred, Kert, Dougan‡, James; Lindsay and Wilson‡, equal; Younger (M.); Boright and Lumsden, equal; Allnutt and Green and Scott, equal; Barlow and Youngheart, equal.

ENGLISH LITERATURE.

Class I.—French, Pearse, Harris‡, Longworth; Johnson and Manny, equal; Cockfiel dand Young, equal; Bennett and Smith, equal; Beckman‡ and Murray, equal; Holland‡, Muttit‡ and Ross and Thompson, equal; Freeman and Gordon† and Lawrence and McCree‡, equal. *Class II.*—Pennington; Brown and Turnbull‡, equal; Corry† and Mills‡, equal; Braeuer and Going and McInnis, equal; Buchanan‡ and Stewart (M. A.), equal; Barlow and Lumsden and Mitchell, equal;Armour, Hall;McVittie and Reid‡, equal;Greggs‡ and Hatcher and Hughes and Youngheart, equal; Babcock and Walker, equal; Allnutt and Percival, equal. *Class III.*—Wilson‡, Davidson, McLaurin (B.), Henry, Hadrill and McLeod and Mick, equal; Green, Cameron; Dougan‡ and McLaurin (C.) and Robinson, equal; Boright and Muddell‡, equal; Campbell, Quigley; Lehman† and Oughtred, equal; Coates†; Dumaresq and Younger (L.), equal.

FRENCH.

Class I.—None. *Class II.*—Harris‡; Braeuer and Manny, equal; Lawrence, Buchanan‡. *Class III.*—Corry†, Gordon†, Cockfield, Logan† Freeman. Mathewson (W.); Lehman† and Wilson‡, equal; Coates†; Younger (L.) and Youngheart, equal; Oughtred and Ross and Younger (M.), equal; Armour; Allan and Brown and Dumaresq and Hall and Henry, equal; Holland‡ and McLaurin (C.), equal; Dean and McLaurin (B.), equal; Greggs‡ and Hadrill and Walker (H. F.) and Wilkes, equal.

GERMAN.

Class I.—Gronin. *Class II.*—Goldblatt, Stewart (M. A.), Harris‡. *Class III.*—Budyk, Muhlstock, Mathewson (W.).

‡ McGill University College of B.C., Vancouver.
† " " " " Victoria.

GREEK.

Class I.—French, Murray. *Class II.*—Mills‡, Lindsay, McVittie; Johnson and Muttit‡, equal. *Class III.*—Beckman‡, Turnbull‡, Braeuer, Percival.

HEBREW.

Class I.—McVittie (Neil Stewart Prize), Page, Gronin, Naylor. *Class II.*—Berman, Quigley, Armstrong, Robinson. *Class III.*—Grossman, Davidson, Bolingbroke, Boucher, Hatcher, Proctor.

HISTORY (half-course).

Class I.—Pearse, Murray; Going and Longworth, equal; Brown and Young, equal; Youngheart, Budyk; Lawrence and Pennington and Smith, equal. *Class II.*—Thomson (H. F.), Green, Thomson (A. K.); Bennett and Hughes, equal; Mathewson; Ross and Walker (H. F.), equal; Campbell and James and Stalker, equal; McInnis; Cameron and McLaurin (B. M.), and Lindsay, equal. *Class III.*—Babcock; Grossman and Wolland, equal; Muhlstock, McLaurin (C. E.), Kert, Chénier; Allan and Barlow and Lumsden, equal; Gronin and Raynes, equal.

POLITICAL ECONOMY (half-course).

Class I.—Pearse, Going, Bissett. *Class II.*—Bolingbroke, Cameron, Brown; Murray and Smith (H. L.), equal; Gronin, Mathewson; Bennett and Longworth and Muhlstock, equal; Ross, Babcock, Hughes. *Class III.*—Lawrence and Thomson (H. F.), equal; Pennington, McInnis, Stalker; Green and Young, equal; Budyk and Chénier and Kert and Youngheart, equal; McLaurin (B. M.); Lindsay and Lumsden, equal; Wolland, Grossman; Campbell and Walker (H. F.), equal; Rayner, Boright.

LATIN.

Class I.—Gordon†, Pearse; Corry† and French, equal; Buchanan‡ and Murray, equal. *Class II.*—Babcock, Cockfield; Bennett and Lehman†, equal; Freeman; Manny and Mills‡, equal; Logan† and Young, equal; Longworth and Walker (M. G.), equal; Muddell‡ and Muttit‡, equal. *Class III.*—Kert and McCree‡, equal; Coates† and Goldblatt and Lawrence, equal; McInnis and Smith and Stewart (M. A. R.), equal; Lindsay; Braeuer and Dougan‡, equal; Beckman‡ and Going and Reid‡, equal: Brown (V.) and Gronin, equal; Hatcher and McLaurin (C.) and Percival, equal; Harris‡; Holland‡ and Ross and Thomson (A. K.), and Turnbull‡, equal; Johnson and Mathewson, equal; Budyk and Scott, equal; Kneeland and Youngheart, equal; Roback, Allan; McLaurin (B.) and Walker (H. L.), equal; Greggs‡ and Henry, equal; Oughtred and Pennington and Younger (L.), equal.

‡ McGill University of College B.C., Vancouver.
† " " " " Victoria.

LOGIC.

Class I.—French, Pearse, Young. *Class II.*—Longworth, Manny, Kneeland: McCree‡ and Walker, equal. *Class III.*—Muttit‡, Johnson, Smith, Freeman, Mathewson; Babcock and Holland‡ and Thomson (H. F.), equal; McInnis, Hughes; Green and Kert, equal; Davidson and McVittie and Mills‡, equal; Hatcher and Percival and Robinson, equal.

MATHEMATICS.

(1) Solid Geometry and Conic Sections.—(Christmas, 1909.)

Class I.—Couture, Muddell‡, Buchanan‡; Gordon† and Inns, equal. *Class II.*—Dougan‡, Cockfield, Logan†. *Class III.*—Stalker, McCree‡, Going; Allan and Coates†, equal; James and Lehman† equal; Corry† and Drury†, equal; Richards; Campbell and Wilson, equal; Boright and Merrill, equal.

(2) Algebra.

Class I.—Couture, Muddell‡. *Class II.*—James and Lehman†, equal; Inns, Corry†. *Class III.*—Gordon†, Buchanan‡; Dougan‡ and Logan†, equal; Allan, Stalker; Going and McCree‡, equal; Boright and Cockfield, equal.

(3) Spherical Trigonometry.

Class I.—Inns, Couture, James, Stalker. *Class II.*—Cockfield. *Class III.*—None.

PHYSICS.

Class I.—Couture, James. *Class II.*—None. *Class III.*—None.

PSYCHOLOGY.—(Christmas, 1909.)

Class I.—None. *Class II.*—French, Young, Pearse, Johnson (H. L.) and Robinson, equal; Longworth, Hughes; McCree‡ and Smith and Davidson, equal. *Class III.*—Percival and Holland‡, equal; Muttit‡, Kneeland, McInnis, Stewart (M. I.), Freeman, Manny; McVittie and Hatcher and Walker, equal; Mills‡, Thomson (H. F.), Green, Rayner, Mathewson; Thomson (A. K.) and Campbell, equal; Turnbull‡ and Wolland, equal.

FIRST YEAR.

ENGLISH.

Class I.—Macnaughton, Bruneau, Corbett, Dewey; Fisher and Morison (M. I.) and Mount and Pedley and Stewart (J. G.), equal; Fritz; Duff and McCormack and Robinson, equal; Chaffey and Nicholson and Smith (R. S.), equal. *Class II.*—Leonowens and McGarry, equal; Lofthouse, Hardy‡; Brown and Cairnes‡ and Farthing and Miller, equal; Hecht and MacSween, equal; Goldbloom, Armstrong;

‡ McGill University College of B.C., Vancouver.
† " " " " Victoria.

Bridgman and Parkes and Smith (E. E.) and Waddington and Walsh, equal; Baillie and Cream and McIlwraith and Silver, equal; Davison‡ and Livingstone and Matthews, equal; Aird† and Bieler and Brown (F. R.), and Larivière and McConnell and Morison (C. K.) and Reinhardt and Shanley and Trapp, equal; Adams† and Gall and Keenleyside‡, equal; Bolton‡ and Heaton and Henry and Leavitt, equal; Atkins and Cameron (A. W.) and Common and Hewlings†, equal; Allingham and Church and Hall‡ and Letvinoff‡ and Lowry and Mathewson and Schwengers‡, equal. *Class III.* — Macaulay and Roberts† and Struthers, equal; Dunbar‡ and Honey and Lighthall and Lovett and Maclean‡ and McLeod and Molleur and Williams, equal; Duggan and Grant‡ and Nehin, equal; England‡ and Maynard and Shearing, equal; Burgess and Mackay and Morgan and Morris and Schwesinger‡ and Wilson‡, equal; Forster‡ and Kirkpatrick‡, equal; Busby‡ and Chadwick‡ and Leclercq† and Robertson†, equal; Austin‡ and Jeakins and Penny, equal; Cameron (E. K.) and Orme‡ and Tubman†, equal; Clay†; Beattie† and Rivard, equal; Gilley, Moore†; Fortier and Howell‡ and Jones†, equal; Shuen‡, Barrett‡.

PASSED IN LITERATURE AND HISTORY.

Caldwell†, Charleson, Hendry†, MacSwain‡, McIntosh, Norris†, Ross‡, Sutherland.

PASSED IN HISTORY AND COMPOSITION.

Conmee, Davis, Greig, Munro‡, McMeekin, Scott, Stevenson (R. C.), Stewart (C. J.), Stuart (L. J.), Walley, Wilder.

PASSED IN HISTORY.

Barron, Cattell‡, Corley, Darling, Hartman†, LeBel, Lingle‡, Marrion†, McClintock, McCracken, Millman, Naughton, Ross, Sacksner, Saunders.

PASSED IN LITERATURE AND COMPOSITION.

Baldwin‡, Bodie‡, McLean (J. J. M.)‡, Paddon‡.

PASSED IN LITERATURE.

Crane‡, DePencier‡, McNaughton‡, McTavish‡, Mude‡, Sargent‡.

PASSED IN COMPOSITION.

DesBrisay‡.

FRENCH.

Class I.—Corbett, Robinson, Fisher, Morison (M. I.), Mount and Tubman†, equal; Cream and Silver, equal. *Class II.*—Nicholson (W.), Miller; Adams† and Brown (F. R.) and Davison‡ and Forster‡ and Gall, equal; Lighthall; Leonowens and Morison (C. K.), equal; Wilson‡; Chaffey and Penny, equal. *Class III.*—Parkes; Clay† and Pedley

‡ McGill University College of B.C., Vancouver.
† " " " " Victoria.

and Reinhardt, equal; Cameron (A. W.); Armstrong and Atkins and Baillie and Roberts†, equal; Church and England‡ and Hewlings† and Nicholson (R. A.) and Walley, equal; DePencier‡ and Shearing, equal; Farthing and McIlwraith and Wilder, equal; Robertson† and Smith and Sutherland, equal; Aird† and Caldwell† and Duggan and Reid‡, equal; Beattie† and Bolton‡ and Hecht and Lovett and McClintock, equal; Bridgman and Chadwick‡ and Common and Lowry and McMeekin and Shanly, equal; Heaton, Fortier and Hendry† and Ross, equal; Letvinoff‡ and Struthers and Waterston, equal; Mackay and Schwesinger‡ and Walsh, equal; Allingham; Barrett‡ and Greig and Moore† and Shuen‡ and Williams, equal.

GERMAN.

Class I.—MacSween, Papke†. *Class II.*—Mount, Goldbloom, Tubman†, Henry, Bieler. *Class III.*—Clay† and Cream, equal. LeClercq‡; Leonowens and Millman, equal.

GERMAN.—Beginners' Class.

Class I.—Armstrong and Duff, equal; Leavitt. *Class II.*—None. *Class III.*—Stalker, Letvinoff‡, Schwesinger‡, McLeod; England‡ and Macaulay‡, equal; Bodie‡.

GREEK.

Class I.—Dewey and Macnaughton and Stewart (J. G.), equal; Dunbar‡; Fritz and Hardy‡, equal. *Class II.*—Williscroft†; Keenleyside‡ and Norris†, equal; Cairnes‡. *Class III.*—Desbrisay‡, Kirkpatrick‡; Bradbury and Wilson, equal; Lofthouse, Matheson, McIntosh, Shanly; Proctor and Wolland, equal; Stevenson (R. B.); Baldwin‡ and McTavish‡ and Rivard, equal.

GREEK.—Beginners' Class.

Class I.—None. *Class II.*—Inns. *Class III.*—Fairgrieve and Thomson, equal; Jeakins, Mick, Samson, Burton, Macleod, Caldwell.

LATIN.

Class I.—Corbett, Bruneau; Macnaughton and MacSween and Stewart (J. G.), equal; Dunbar‡; Duff and Robinson, equal; Dewey; Hardy‡ and Mount, equal; Wilson (R. M.)‡; Norris†, Morison (M. I.), Silver and Williscroft†, equal. *Class II.*—Fritz; Fisher and Morison (C. K.) and Tubman†, equal; Caldwell† and McGarry, equal; Cameron (A. W.) and Miller, equal; Chaffey and Keenleyside‡ and Larivière, equal; Brown (F. R.) and Forster‡ and Goldbloom and Hewlings†, equal; Cairnes‡ and England‡ and Roberts†, equal; Aird† and Leonowens and Pedley, equal; Clay† and Gall and Robertson†, equal; Bieler and Smith, equal; Bolton‡; Moore† and Nicholson, equal; Adams† and Hecht and Hendry†, equal. *Class III.*—Honey and Leavitt and Lovett, equal; Davison‡ and Jeakins, equal; Beattie†; Church and Common and Letvinoff‡, equal; Wadley, Reinhardt; Austin‡ and DesBrisay‡ and Lofthouse, equal;

‡ McGill University College of B.C., Vancouver.
† " " " " Victoria.

Farthing and Parkes, equal; Bridgeman and Mackay‡, equal; Jones† and Lingle‡ and Wilson, equal; Naughton; Chadwick‡ and DePencier‡ and Orme‡ and Shanley, equal; Baldwin‡ and Penny and Struthers, equal; Armstrong; Atkins and Mathewson and Stevenson (R. B.) and Waterston, equal; Schwesinger‡; Bodie‡ and Shearing, equal; Macnaughton‡ and Munro‡ and Williams equal; Henry and Hodgson and Inns and Mutch‡ and Schwengers‡, equal.

MATHEMATICS.

(1) Algebra.

Class I.—Robinson, Fisher, Fritz, Stewart (J. G.), Common, Mount, Morison (M. I.), DesBrisay‡; Cairnes‡ and Macnaughton, equal; Kirkpatrick‡ and Morison (C. K.), and Pedley, equal. *Class II.*—Frame‡; Corbett and Duff and Leavitt and McLeod (W.), equal; Lowry, Dunbar‡; Aird and Cameron (A.) and Dewey and Reinhardt, equal; Forster‡ and McKay‡ and Oana‡ and Wilson, equal; Duggan and Farthing, equal; Atkins and LeClercq†, equal; Caldwell† and Moore† and Mutch‡, equal; Matheson, Heaton; Bolton‡ and Brown (F. R.) and Chadwick‡ and Letvinoff‡ and Pickle, equal. *Class III.*—Barwick and Walsh, equal; Bridgman, Armstrong; Davison‡ and Goldbloom and Lovett, equal; Raynes and Williscroft†, equal; Henry and Marrion† and Mude‡, equal; Chaffey and Morison (M. I.) and Penny, equal; Allingham and Gall and McGarry, equal; Barrett‡ and Gilley and Hardy‡ and Hartman† and Orme‡, equal; Busby‡ and Morris and Norris† and Sargent‡, equal; Smith and Sutherland, equal; Adams†; Roberts† and Rogers‡ and Ross and Shearing, equal; Brown (T. A.) and MacSween (F.) and Nicholson (W.) and Power, equal; DePencier‡ and Lingle‡ and Nehin and Macnaughton‡, equal; Shanley and Shuen‡ and Trapp, equal; Austin‡ and Bell and Church and Hodgson and Jeakins and Lofthouse and McMeekin and McCormack and Munro‡ and Sacksner, equal.

(2) Trigonometry.

Class I.—Atkins and Stewart (J. G.), equal; Dewey, Fisher, Robinson, Fritz, Corbett; Macnaughton and Mount, equal; Morison (C. K.), Chaffey; Morison (M. I.) and Forster‡, equal; Aird† and Kirkpatrick‡ and Duff, equal; Leavitt, Pedley, Dunbar‡; Brown (F. R.) and Oana‡, equal; Cairnes‡ and DesBrisay‡, equal. *Class II.*—Church, Matheson, Scott; Frame‡ and Penny and Walsh, equal; Reinhardt; Duggan and Goldbloom and Wilson, equal; Hartman†; Bridgman and Davison‡ and Smith (E. E.), equal; Common and Lingle‡ and Moore† and Nehin and Trapp, equal; Heaton and Robertson†, equal; Bolton‡ and Hecht and McKay‡, equal. *Class III.*—Caldwell† and Jeakins, equal; Chadwick‡ and Greig and Lovett, equal; Adams† and Beattie† and Mutch‡, equal; Allingham and Charleson and Lowry and Walley, equal; Farthing and Hardy‡ and McGarry and Morris and Roberts† and Sacksner, equal; Hendry† and Nicholson and Stevenson, equal; Shuen‡, Barrett‡; Gall and Morgan, equal; Cameron (A. W.) and Lofthouse

‡ McGill University College of B.C., Vancouver.
† " " " " Victoria.

and Mude‡ and Munro‡, equal; Barwick and Stewart (C. J.), equal; Williscroft†; Busby‡ and Keenlesyide‡ and McMeekin, equal; Cameron and Hewlings† and Sargent‡, equal; Gilley and McIlwraith and McLeod, equal; Molleur and McConkey and Norris† and Orme‡, equal.

(3) Geometry.—(Christmas, 1909.)

Class I.—Corbett and Dewey and Duff and Fritz and Robinson and Stewart (J. G.), equal; Aird† and Mount, equal; Beattie† and Moore† equal; Heaton and Inns and Morison (M. I.), equal; Caldwell† and Finland† and Kirkpatrick‡, equal; Church and Honey, equal; DesBrisay (E. M.)‡ and MacSween, equal; Fisher and Reinhardt, equal; Common and Nehin, equal; Chaffey; Gall and Lovett and Matheson and Morison (C. K.) and Smith (E. E.), equal; Pedley; Brown (F. R.), and Lofthouse and Macnaughton and Davison‡ and Letvinoff‡ and Ross, equal. *Class II.*—Adams† and Shapiro, equal; Cameron (A. W.) and Goldbloom and Wilson, equal; Barwick and Cairnes‡ and Dunbar‡ and Frame‡, equal; Allingham and McGarry, equal; Williscroft†; LeBel and Munro‡ and Oana‡ and Robertson† and Robinson†, equal; Bridgman and Charleson and Jeakins and McIlwraith and Maclaren and Penny and Stewart (C. J.) and Shuen‡, equal; Mude‡; McLeod and Shearing, equal; Baldwin‡ and Shanley, equal; Armstrong and Atkins and Farthing and Leavitt and Mackay‡ and Mutch (J.)‡ and Sacksner, equal. *Class III.*—Hendry† and Henry and Tubman†, equal; Nicholson and Struthers, equal; Bolton‡ and Smith (E. L.), equal; Harvey‡ and McTavish‡ and Norris†, equal; Chadwick‡ and Hardy‡ and Mutch (E.)‡, equal; Duggan and Stevenson (R. C.), equal; Des Brisay (E.)‡ and Hartman† and Keenleyside‡ and Molleur and Schwengers‡ and Trapp, equal; Stevenson (R. B.) and Penny‡, equal; Busby‡ and LeClercq† and Morgan and Walsh, equal; Lingle‡ and Marrion†, equal; Crane‡ and Hecht and Kirkpatrick and Maynard and McMeekin and Osborne and Rogers‡, equal; McConnell and Roberts†, equal; Barrett‡ and Clay†, equal; McGregor and Sutherland and Williams, equal; DePencier‡; Forster‡ and Gilbert‡ and Hewlings† and Howell‡ and Scott and Walley, equal; Austin‡ and McConkey and McCormack, equal; McClintock and McGillis (H. I.) and McIntosh, equal; Cameron (E. K.) and Fulton and Gilley and MacAulay‡ and McCuaig and McGillis (S. B.) and McLean (J. J. M.)‡ and Macnaughton‡ and Merrill and Schwesinger‡ and Stuart (L. J.), equal.

PHYSICS.

Class I.—Dewey, Corbett, Fritz, Silver; Atkins and Reid‡, equal; Stewart (J. G.); Chaffey and Duff, equal; Moore†; Kirkpatrick‡ and Miller, equal; Forster‡ and Morison (C. K.), equal; Macnaughton. *Class II.*—Armstrong and Goldbloom, equal; DesBrisay‡ and Fisher and Molleur and Morison (M. I.) and Parkes, equal; Aird† and Hardy‡ and Larivière, equal; Bieler and Chadwick‡ and Macaulay and Pedley and Smith, equal; McKay‡ and Oana‡, equal; Bruneau and Cairnes‡, equal; Bolton‡ and Hall‡ and Howell‡ and Williscroft†,

‡ McGill University College of B.C., Vancouver.
† " " " " Victoria.

equal; Mount and Roberts†, equal; Orme‡; Beattie† and Marrion† and Reinhardt, equal; Letvinoff‡ and McGarry, equal; Hodgson and Keenleyside‡ and Lovett and Penny, equal; Norris†; Lowry and Robinson, equal. *Class III.*—Burgess and Church and Hartman†, equal; Baldwin‡ and Barrett‡ and Frame‡, equal; Stevenson (R. B.) and Trapp and Walley, equal; Davison‡ and Rogers‡, equal; Caldwell† and MacSween, equal; Cameron and Leavitt and Morris and Robertson†, equal; Bridgman and Heaton and Mathewson, equal; Allingham and Greig and Lofthouse, equal; LeClercq† and McLean (J. J. M.)‡ and Williams, equal; Grant‡ and Maclean‡, equal; Brown and Cameron and Common and Gronin and McNaughton (H. A.)‡ and Sargent‡ and Shanley, equal; Busby‡ and Nicholson and DePencier‡ and Ross, equal; Chénier and Mick and Mutch (J. T.)‡ and Schwesinger‡, equal; Dunbar‡ and Gilley and McIlwraith and Mude‡ and Mutch‡ and Shearing, equal; Hendry† and Munro‡ and Tubman†, equal; Adams† and Austin‡ and Crane‡ and Shuen‡ and Schwengers‡, equal; McCormack; Charleson and Leonowens and Hewlings† and Morgan, equal; Honey and Lingle‡ and Maynard and Wilder, equal; Duggan and Hecht and Jones†, equal; Gall and Henry and LeBel and McLeod and Nehin and Scott and Sacksner and Struthers and Stuart (L. J.), equal.

McGill University

REPORT OF THE

Faculty of Applied Science

Honours in the Graduating Class of the Faculty of Applied Science and Presentation of Medals, Certificates and Prizes, as follows:—

(Names in alphabetical order).

Adrian, Robert Wilson—Honours in Thermodynamics.
Boright, George Kenric—Honours in Electrical Engineering Laboratory.
Burland, George Lewis—Canadian Mining Institute Prize for Paper on Coal Mining subject; Drummond Second Prize for Summer Essay.
Clark, Albert William Gardner—Honours in Operating, Railway Engineering and Railway Mechanical Engineering.
Colter, Ashley Alexander—Honours in Bridge Design.
Cowles, Eugene Pomeroy—British Association Medal and Prize; First Prize for paper read before the Undergraduates' Society of Applied Science; Drummond Prize for Summer Essay; Canadian Mining Institute Prize for Paper on Mining subject; Honours in Mining Engineering, Ore Dressing and Designing, and Laboratory Thesis.
Cox, John Raffles—Honours in Mining Engineering and Ore Dressing.
Derrom, Donald Laird—Honours in Operating.
Dowie, Kenneth William—Honours in Modern Architecture, Hygiene and Structional Engineering.
Ferrier, Tyrrell—Honours in Electrical Designing and Electrical Engineering.
Fisher, Seymour J.—British Association Medal and Prize; Honours in Machine Design, Mechanical Engineering and Mechanics of Machines.
Fregeau, John Henry—Honours in Electrical Designing.
Gilchrist, Thomas Ernest, —Honours in Thermodynamics.
Gillies, George Ackland—Sir William Dawson Fellowship in Mining; Honours in Mining and Designing.
Gladman, Victor Lionel, Honours in Hygiene.
Harris, Norman Charles—Fourth Year British Association Exhibition.
Hattie, James Blake—Third Prize for Paper read before the Undergraduates' Society of Applied Science.
Jost, Leslie Gordon—Honours in Bridge Design.
Kingston, John Lyndhurst—Honours in Thesis on Architecture.
Kohl, George Hutton—Honours in Electrical Engineering Laboratory.
MacAfee, Ralph Evans—Honours in Thermodynamics.
MacDiarmid, Archibald Alexander—Honours in Electrical Design.
McDougall, John Cecil—Honours in Architectural Design.
McHenry, Morris James—British Association Medal and Prize; Honours in Electrical Engineering, Electrical Designing and Electrical Engineering Laboratory.

McLean, Calvin S.—Honours in Metallurgy.
McNab, Lewis Grant—British Association Medal and Prize; Honours in Operating and Signals.
McNaughton, Andrew George L.—Honours in Electrical Engineering Laboratory.
Magrath, Charles Bolton—Fourth Year British Association Prize; Honours in Machine Design, Mechanical Engineering, Mechanics of Machines, and Thermodynamics; Prize for Summer Essay.
Openshaw, John Edward—Honours in Bridge Design.
Paine, Arthur James Carman—Honours in Architectural Practice, Modern Architecture, Thesis on Architecture and Hygiene.
Popham, John Francis Watson—Honours in Railway Mechanical Engineering.
Price, Thomas Ernest—British Association Medal and Prize; Honours in Hydraulics and Geodesy.
Reid, Archibald Cumberland— Honours in Architectural Design and Structural Design.
Shanks, Daniel Albert—Second Prize for Paper read before the Undergraduates' Society of Applied Science, and Prize for Summer Essay.
Slingsby, Henry—Honours in Operating and Railway Engineering.
Sproule, Stanley Macquana—Honours in Bridge Design; Greenshields Prize for Summer Essay.
Trench, Alfred Saward Chenevix—Honours in Theory of Structures and Graphical Statics and Hydraulics; Prize for the best paper of the year in the General Section of the Canadian Society of Civil Engineers.
Younger, Harry Robert—Honours in Railway Engineering.

PASSED FOR THE DEGREE OF BACHELOR OF ARCHITECTURE.

(In order of merit.)

Paine, Arthur James Carman
McDougall, John Cecil
Kingston, John Lyndhurst
Blanchard, Edward Stirling

PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE

(In order of merit.)

IN ARCHITECTURAL ENGINEERING.

Dowie, Kenneth William
Reid, Archibald Cumberland
Gladman, Victor Lionel

IN CHEMICAL ENGINEERING.

Campbell, William Boyd.

IN CIVIL ENGINEERING.

Price, Thomas Ernest
Sproule, Stanley Macquana
Smith, Albert Wilmot

De Hart, Joseph Bertram
Jost, Leslie Gordon
Younger, Harry Robert
Hattie, James Blake
Colter, Ashley Alexander
Trench, Alfred Saward Chenevix
Anderson, Goldie Fraser
Dennis, T. Clinton
Stewart, Robert Bruce
Young, Alexander Arthur
Cowley, Arthur Thomas Noel
Cloran, Joseph Harry D.
Cole, Francis Thornton
Ewart, Douglas Marsden
Robertson, William Scott
Scott, Oswald Hayward
Knewstubb, Frederick William
Von Pozer, Charles Henry
Malloch, Francis Gibson
Daubney, Charles Bruce
Scovil, Harry Hutton
Ryley, Alfred St. Clair
Narraway, Athos Maxwell
Menzies, John Whyte
Goodstone, Arthur Simon
Wyman, John Kirby
Hanson, William Gordon
Stark, Rubin

Unranked.

Dakin, Frederick Walter
Manny, David E.
Openshaw, John Edward

IN ELECTRICAL ENGINEERING

McHenry, Morris James
Boright, George Kenric
MacAfee, Ralph Evans
Kohl, George Hutton
Ferrier, Tyrrell
McNaughton, Andrew George L.
Fregeau, John Henry
Reid, Rupert Haddington
Needham, Robert James } equal.
MacDiarmid, Archibald Alexander }
Gill, Peter Clark
Gilchrist, Thomas Ernest
Powis, Gordon Douglas
Vroom, Harold Heard
Shanks, Daniel Albert
Jackson, Donald Alphonse
Macdonald, James Harrison
Landry, Wilfred Andrew
Sweetnam, Samuel

Unranked.

Dawes, Andrew Sydney
Slavin, Reginald Victor

IN MECHANICAL ENGINEERING.

Fisher, Seymour J.
Magrath, Charles Bolton
Daubney, James Edwin
Beagley, Thomas George
Adrian, Robert Wilson
Donald, Edward Douglas
Dobson, Arthur Alexander
Hollinsed, Richard Eyare Leslie
Blackett, Victor St. Clair
Buttenshaw, Alfred Sidney } equal.
Mackay, Edward
Lomer, Gerald Bell

Unranked.

Graham, Harold Mitchell
Macrae, John Morrison
Wilson, Alexander

Ægrotat standing.

Harris, Norman Charles

IN METALLURGICAL ENGINEERING.

Williams, Francis George Maxwell

IN MINING ENGINEERING.

Cowles, Eugene Pomeroy
Gillies, George A.
Gibbins, Gwynn Gilbert
Ayer, Kenneth Roger
McLean, Calvin S.
Burland, George Lewis
Brown, Osborn Nicholson
Brunton, James Stopford Lauder
Fowler, Frank Scott
Cox, John Raffles
Simpson, Alan Cradock
Archibald, Max Stanfield Eaton
Haultain, Alexander Gordon
Rutherford, John Reginald
Elkins, Robert H. B.
Pearce, Seabury Kains
Macfarlane, Robert George
Maltby, Quinton Johnstone
Bregent, Edmund
Meek, Victor M.
Strong, Horace R. F

Unranked.

Morison, Hugh Gordon

IN RAILWAY ENGINEERING.

McNab, Lewis Grant
Derrom, Donald Laird
Timberlake, John Newton
Clark, Albert William Gardner
Popham, John Francis Watson

Unranked.

Slingsby, Henry

THIRD YEAR

PRIZES.

(Names in alphabetical order.)

Earle, Harry—Prize for General Proficiency (Department of Civil Engineering).
Linag', Ronald K. — British Association Prize ; Prize for General Proficiency (Department of Mechanical Engineering).
Morkill, Frank Edward—Prize for General Proficiency (Department of Railways).
Murray, George Ernest—Prize for General Proficiency (Department of Mining Engineering).
Scrivener, Robert Massey—British Association Exhibition; Prize for General Proficiency (Department of Electrical Engineering)

PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit.)

IN ARCHITECTURE.

*MacDonald, George Heath, Murray Harbour North, P.E.I.
Payne, Sydney Carlton, Ottawa, Ont.
*Peck, Hugh A., Montreal, Que.
Hawkins, Stuart Schofield, Ottawa, Ont.

IN CHEMISTRY.

*Macaulay, James Robert, Montreal, Que.

IN CHEMICAL ENGINEERING.

Walker, George Henry Pearson, Saskatoon, Sask.
*Boyd, Laurence Chadwick, Bobcaygeon, Ont.

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* To pass supplemental examinations.

IN CIVIL ENGINEERING.

Earle, Harry, Vancouver, B.C.
Willis, George Christopher, Toronto, Ont.
Underhill, Frederic Clare, Vancouver, B.C.
Wilson, Robert Starr Leigh, Lunenberg, N.S.
Carnwath, James, Riverside, N.B.
Ray, Hugh Percy, Westmount, Que.
Dodd, Geoffrey Johnstone, Jamaica, B.W.I.
*Bacon, Thomas Hamilton, Montreal, Que.
DeGruchy, Charles Southwell, Montreal, Que.
Wilson, Clifford St. J., St. John, N.B.
Johnston, Robin Louis, St. John, N.B.
Boast, Richard Griffith, Richmond, Que.
Nares, Basil Llewellyn, Winnipeg, Man.
*Foster, Francis William, Montreal, Que.
*Collier, Harold Fetherstonhaugh, Westmount, Que.
*O'Leary, Frederick James, Laggan, Alta.
*Child, Cyril George, Calgary, Alta. } equal.
Parker, Stanley Davidson, Ottawa, Ont. }
Anderson, Alexander Alderson, Ottawa, Ont.
*Wood, Douglas Fletcher, Westmount, Que.
Richardson, Creighton Elliott, Montreal, Que.
*Goodeve, Leslie Charles, Ottawa, Ont.
*Hooper, J. Harold, North Milton, P.E.I.
*Watson, Hugh Monroe, Montreal, Que.
*Kelly, Albert John, Edmonton, Alta.
*Thompson, Norman A., Coaticooke, Que.
*Duguid, Archer Fortescue, Aberdeen, Scotland.

IN ELECTRICAL ENGINEERING.

Scrivener, Robert Massey, Hay, N.S.W., Australia.
Staveley, Walter D., Montreal, Que.
Kearney, Graham, Renfrew, Ont.
Gregory, Philip Stancliffe, Fredericton, N.B.
Archibald, Ernest Bryden, Montreal, Que.
Smith, William Plumb, Montreal, Que.
Ivey, Charles Herbert, London, Ont.
Motyer, Arthur John, Hamilton, Bermuda.
Wilson, Thomas Edgar, Langley, B.C.
Dennison, Lawrence George, Westmount, Que.
*Murphy, William Herbert, Montreal, Que.
*Falcke, Joseph, Cape Town, South Africa.
Philips, Campbell, Westmount, Que.
*Pengelley, Walter Gordon, Jamaica, B.W.I.
*Davis, Ira T., Amherst, N.S.

IN MECHANICAL ENGINEERING.

Linagh, Ronald K., Montreal, Que.
Briercliffe, Henry Carle Dyson, Richland P.O., Man.
Gnaedinger, Cedric Walter, Montreal, Que.
*Brotherhood, Wilfred Cashel, Stratford, Ont.
*Webb, Edward Mitchell, Montreal, Que.
*Hargraft, Stuart Alex., Winnipeg, Man.

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* To pass supplemental examinations.

IN METALLURGICAL ENGINEERING.

*Eldridge, Gardner Smith, Vancouver, B.C.
*Porter, Cecil George, St. John, N.B.

IN MINING ENGINEERING.

Murray, George Ernest, Ottawa, Ont.
*Galloway, John Davidson, Grand Forks, B.C.
*Oughtred, Lawrence William, Marbleton, Que.
Evans, Alfred James Lawrence, Quebec, Que.
*Ross, Wallace Gordon, Montreal, Que.
*Koch, Ernest Christian, Westmount, Que.
*Gillies, Clyde Campbell, Toronto, Ont.
*Wünsch, Donald Frederick Sandys, Knutsford, England.

IN RAILWAYS.

Morkill, Frank Edward, Lima, Peru.
McLeod, Allan C. G., Montreal, Que.
Forbes, Duncan Stuart, Montreal, Que.
*Kingsley, Edward Robert, Lindsay, Ont.

SECOND YEAR

PRIZES.

(In alphabetical order).

Davis, John Caswell—Second Prize for General Proficiency.
Macleod, Donald L.—First Prize for Mathematics and Mechanics; First Prize for General Proficiency.
Norris, J. Hillyard—Third Prize for Mathematics and Mechanics.
Weir, James—Second Prize for Mathematics and Mechanics; Third Prize for General Proficiency.

PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit).

IN ARCHITECTURE.

DesRosiers, Ivanhoe, Ottawa, Ont.
*Richards, Hugh A., Ottawa, Ont.
*Campbell, Kenneth Mowatt, Fredericton, N.B.
*King, Edmund Dewitt, Chipman, N.B.
*Lockhart, Earle Anthony, Montreal, Que.
Barnaby, Hazen Otis, St. John, N.B.
*Wilson, Charles, Dundas, Ont.

IN CHEMISTRY.

*Hyman, William Samuel, Gaspe, Que.
*Skelton, Ralph, Montreal, Que.
*Shaw, Douglas A., Montreal, Que.
*McDougald, Charles William Hardman, Ottawa, Ont.

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* To pass supplemental examinations.

IN METALLURGY.

*Mackintosh, Ivan R., London, Ont.

OTHER COURSES.

Macleod, Donald L., Summerside, P. E. I.
Davis, John Caswell, Montreal, Que.
Weir, James, Saskatoon, Sask.
Tebbutt, Oswold Neville, Cambridge, England.
Norris, J. Hillyard, Montreal, Que.
Hayward, John Gray, Brockville, Ont.
Peden, Ernest, Montreal West, Que.
Schippel, Henry Frederick, Montreal, Que.
Stroud, Wallace Douglas, Montreal, Que.
Randolph, Thomas Granville, Frome, Somerset, England.
Gass, Laurence Henderson, Montreal West, Que.
Duggan, Herrick Stevenson, Sydney, C.B.
Calkins, Harold Almon, Montreal, Que.
DesRosiers, Arthur, Ottawa, Ont. } equal.
Ryan, Edward A., Montreal, Que. }
Heward, Francis S. B., Montreal, Que.
Barnes, Frank, Port Hope, Ont. } equal.
May, William Taylor, Ottawa, Ont. }
Hutchins, George Ross, Montreal, Que.
Jelly, Ernest M., Carleton Place, Ont.
MacDermot, Edward C., Montreal, Que.
Robertson, Charles, Brantford, Ont.
Boyd, Thornton B., Bobcaygeon, Ont.
Robb, James Bruce, Westmount, Que.
Cummer, Robert Lockman, Hamilton, Ont.
Bell, Donald A. S., Ottawa, Ont. } equal.
*McRae, Joseph Percy, Ottawa, Ont. }
*McMahon, James Walsh, St. Albans, Vermont.
*Weber, K. Rudolph, Montreal, Que.
Burr, Arthur Vibert, Bloomfield, Ont.
*Whittall, Fred. R., Westmount, Que.
Lefebvre, Eugene, Montreal, Que.
Kearns, James Alf., Montreal, Que.
Wheatley, James Howard, Westmount, Que.
*Hall, Edward Patterson, Quebec, Que.
*Traversy, Valmore Isidore, Montreal, Que.
*Saunders, Rodney Vernon, Sandy Cove, N.S. } equal.
*Veilleux, William H., Sherbrooke, Que... }
*Boyd, Winnette W., Bobcaygeon, Ont.
*Johnson, Geoffrey Alan, Ottawa, Ont.
Casey, Joseph Felix, Montreal, Que.
*Salter, John Norman, Carleton Place, Ont.
McGannon, Edward Matthew, Brockville, Ont.
*Reinhardt, Ernest A., Westmount, Que.
*Sherman, John James, Hawkesbury, Ont.
Armstrong, John Douglas, Ottawa, Ont.
*Brown, Michael J., Montreal, Que.
*Downes, Michael A., Montreal, Que.
*Edwards, Herbert Laurence, Ponoka, Alta.

* To pass supplemental examinations.

*Fay, Leonard William, Knowlton, Que.
*Hugh-Jones, Evan Bonnor, Wrexham, North Wales.
*Futterer, Edward, Albany, N.Y.

(*Unranked.*)

(In alphabetical order).

Alward, Ernest Turnbull, St. John, N.B.
*Beauvais, Louis J., Chicago, Ill.
Bolton, Philip L., St. Lambert, Que.
*Christie, John Edward, Lachute, Que.
*Cram, Haldane Rodgers, Ottawa, Ont.
*Darling, Gordon, Montreal, Que.
*Fortier, Frank Albert, Westmount, Que.
Garth, Charles Holmes, Rosemere, Que.
*Irwin, William Eric Cromelin, Ottawa, Ont.
*Lesage, George William, Montreal, Que.
*Lipsey, Joseph, Montreal, Que.
*Nares, Hilary George, Winnipeg, Man.
Ovalle, Nestor Keith, Long Island, N.Y.
*Ralston, Edward da Fonseca, S. Paulo, Brazil.
*White, James Gordon, Woodstock, Ont.
*Willis, Frank Strachan, Westmount, Que.
*Wood, James Russell, Peterboro, Ont.
*Woodyatt, Charles Frederick Korlum, Brantford, Ont.

FIRST YEAR

PRIZES.

(In alphabetical order)

Crewdson, Eric—Scott Exhibition; First Prize for General Proficiency.
Dodd, George Saville—Third Scott Prize.
Hebden, John Brereton—Second Fleet Prize (Shopwork).
MacRae, William Alexander—First Fleet Prize (Shopwork).
Murphy, Stephen John—Second Scott Prize; Second Prize for General Proficiency.
Reeder, Kenneth Abraham—Third Prize for General Proficiency.

PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit).

IN ARCHITECTURE.

*Nicholson, Ralph Ardrey Valance, Ottawa, Ont.

OTHER COURSES.

Crewdson, Eric, Milnthorpe, England.
Murphy, Stephen John, Montreal, Que.
Reeder, Kenneth Abraham, Saskatoon, Sask.
Wright, Walter George, London, Ont.

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* To pass supplemental exaninations

MacRae, William Alexander, Montreal, Que.
Baily, Philip Pendlebury, Watford, England.
*Mais, Herbert R., Jamaica, B.W.I.
Lindsay, Charles Crawford, Quebec, Que.
Eaton, Herbert Vincent, Westmount, Que.
*Berry, Robert Crapper, Montreal, Que. } equal.
Mitchell, William Gordon, Port Hope, Ont. }
Chambers, Hugh D., New Glasgow, N.S.
Gordon, William Bain, Portland, Oregon.
Burrow, Horace Lovell, Hamilton, Ont.
Jaques, George Eric, Montreal, Que.
*Tothill, Geoffrey Charles, St. Andrews, Suffolk, England,
Fitzgerald, Edward, Peterboro, Ont.
Kirby, Thomas H., Ottawa, Ont.
Hamer, Thurston Moseley, Mexico City, Mexico.
Morrow, Thomas Maclellan, St. John, N.B.
Tait, Irving Richard, Montreal, Que.
Gilchrist, George Hagar, Ottawa, Ont.
*Eardley-Wilmot, Trevor, Perth, Ont.
Macaulay, Colin A., Scotstown, Que. } equal.
Murray, Charles Ivan, Brockville, Ont. }
Skeete, Arthur Torrance, Barbados, B.W.I.
*Harvey, Ernest R., Lyndhurst, Ont.
*Baker, Massy, Tipperary, Ireland.
Davies, James Frederick Blair, Hull, Que.
Joseph, Kenneth de Sola, Quebec, Que.
Crossfield, John Townley Knowles, Monmouth, England.
*Leach, William Lindsay, Montreal, Que.
*Dempster, Reginald Charles, Rossland, B.C.
Egerton, Rowland Philip, Ealing, London, W., England.
Taylor, George Melville, Ottawa, Ont.
*Wilson, Calvin P., Huntly P.O.
Learned, Frank Beattie, Learned Plain, Que.
Wood, James A., Melbourne, Que.
*Boire, Joseph Jules, Quebec, Que. } equal.
Davidson, Donald Alastair Leslie, London, S.W., England }
*Wilson, William James, Ottawa, Ont.
*McDonald, Louis M., St. John, N.B.
*Lyster, Horace Muir, Kirkdale, Que.
*Kavanagh, Walter Joseph, Montreal, Que.
*Webb, Charles Harry, London, England.
*Tett, Harold B., Bedford Mills, Ont.
*Hooper, Benjamin Reagh, Charlottetown, P.E.I.
*Thompson, Geoffrey, Weybridge, Surrey, England.
*Goodwin, William Carlyle, Westmount, Que.
*Hebden, John Brereton, Montreal, Que.
*Paterson, Harold Sutton, Ottawa. Ont.
*McEvenue, St. Clair, Toronto, Ont.
*Martin, John Lawrence, Tassie, Montreal, Que.
*Hanley, Alphonsus E., Montreal, Que.
*Roy, L. Philippe, Quebec, Que.
*Dodd, George Saville, Jamaica, B.W.I.
*McCaghey, Norman F., Quebec, Que.
*McBeath, Roy S., Marshfield, P.E.I.
*Brisbane, John Sutherland, Montreal, Que.

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* To pass supplemental examinations.

Unranked.

(In alphabetical order.)

*Abbott, William Hamilton, Westmount, Que.
*Angus, Roy Forrest, Regina, Sask.
*Blair, Donald, Ottawa, Ont.
*Bolan, William M., Montreal, Que.
*Cash, George Southam, Wincanton, Somerset, England.
*Cohen, Nathan Bernard, Montreal, Que.
Connolley, William John, Jamaica, B.W.I.
*Cooper, Colin Henry Benedict, Frome, Somerset, England.
*Drummond, Kevin Stewart, Midland, Ont.
Duffield, Colin M., London, Ont.
*Gohier, Joseph Ernest, St. Laurent, Que.
Goode, Thomas Gerald, Westmount, Que.
Graham, Ewen John, Apple Hill, Ont.
*Hetherington, Errol A., Quebec, Que.
*Hughson, John Ward, Ottawa, Ont.
*LaForest, John Maurice, Montreal, Que.
Lauder, Lester E., Montreal, Que.
Legris, Charles E., Arctic, R.I.
*Lindsay, Neville H., Calgary, Alta.
*Lynch, T. Leo, Fredericton, N.B.
*McCuaig, Thomas, Vankleek Hill, Ont.
McLeod, Clement Kirkland, Montreal, Que.
McMaster, Harold G., Montreal, Que.
*Mallory, George Edward Leigh, Bowmanville, Ont.
*Masson, Donald Howe, Ottawa, Ont.
Mather, Richard Henry, Ottawa, Ont.
*Metcalfe, Eric D., Montreal, Que.
*Nicholls, Laurence Howard, Montreal, Que.
*Paddon, Hubert Archibald, St. Johns, Newfoundland.
*Pain, George Frederick, Allston, Mass.
*Pitts, Andrew A., Montreal, Que.
*Prince, Preston G., Montreal, Que.
*Pullen, John, Westmount, Que.
*Redpath, Ronald F., Montreal, Que.
*Reid, Arthur William, Ottawa, Ont.
*Smith, Briton Oliver, Montreal, Que.
*Vallance, Henry Walter, Hamilton, Ont.
Wilson, William Bowman, Ottawa, Ont.

STANDING IN THE SEVERAL SUBJECTS.

(1) *STUDENTS IN ARCHITECTURE & ARCHITECTURAL ENGINEERING.*

ARCHITECTURAL DRAWING.

First Year.—Class I.—Ouimet. *Class II.*—McConkey, Nicholson, Barwick
Class III.—McGregor.

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* To pass supplemental examinations.

ARCHITECTURAL DRAWING (History of)

Fourth Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Dowie and Kingston, equal; Blanchard, Paine; Gladman and Reid (A.C.), equal.
Third Year.—*Class I.*—None. *Class II.*—MacDonald and Payne and Richardson, equal; Hawkins and Peck, equal. *Class III.*—None.
Second Year.—*Class I.*—Lockhart. *Class II.*—DesRosiers, Campbell; Barnaby and King and Richards and Wilson, equal. *Class III.*—None.

BUILDING CONSTRUCTION.

Second Year.—*Class I.*—Richards. *Class II.*—DesRosiers, Campbell, King. *Class III.*—Lockhart, Barnaby.

DESCRIPTIVE GEOMETRY.

Third Year.—*Class I.*—None. *Class II.*—MacDonald and Peck, equal. *Class III.*—Hawkins and Richardson, equal; Payne.

DESIGN.

Fourth Year.—*Class I.*—Reid (A.C.). *Class II.*—Gladman, Dowie. *Class III.*—None.
Fourth Year.—(*Class C*).—*Class I.*—McDougall. *Class II.*—Kingston and Paine, equal; Blanchard. *Class III.*—None.
Third Year.—(*Class B*).—*Class I.*—MacDonald, Peck. *Class II.*—Payne, Hawkins. *Class III.*—Richardson.
Second Year.—(*Class A*).—*Class I.*—Richards. *Class II.*—Campbell and DesRosiers, equal; King and Lockhart, equal. *Class III.*—Barnaby and Wilson, equal.

ELEMENTS OF ARCHITECTURE.

Second Year.—*Class I.*—King, Campbell. *Class II.*—Lockhart, Des Rosiers, Wilson, Richards, Barnaby. *Class III.*—None.

FRENCH.

First Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Nicholson.

HISTORY.

Second Year.—*Class I.*—King, Campbell. *Class II.*—Barnaby, Wilson. *Class III.*—Lockhart.
First Year.—*Class I.*—Nicholson. *Class II.*—Ouimet, Barwick. *Class III.*—McConkey.

HISTORY OF ARCHITECTURE.

Fourth Year.—*Class I.*—None. *Class II.*—Kingston, Dowie, Gladman, Paine, McDougall. *Class III.*—Reid (A.C.), Blanchard.
Third Year.—*Class I.*—None. *Class II.*—MacDonald, Payne, Peck. *Class III.*—Richardson, Hawkins.
Second Year.—*Class I.*—DesRosiers. *Class II.*—King, Campbell, Richards. *Class III.*—Lockhart; Barnaby and Wilson, equal.

HYGIENE.

Fourth Year.—Class I.—Dowie; Gladman and Payne, equal; Kingston, Reid. *Class II.*—Little, Blanchard. *Class III.*—None.
Third Year.—Class I.—Hawkins, Payne. *Class II.*—MacDonald and Peck, equal. *Class III.*—None.

MATHEMATICS.

Second Year.—Class I.—None. *Class II.*—None. *Class III.*—None.
First Year.—Class I.—None. *Class II.*—None. *Class III.*—Barwick.

ORNAMENT.

Third Year.—Class I.—McDougall and Payne, equal. *Class II.*—MacDonald and Peck, equal; Hawkins and Richardson, equal. *Class III.*—None.
Second Year.—Class I.—DesRosiers and King, equal; Lockhart. *Class II.*—Richards, Campbell, Barnaby. *Class III.*—Wilson.

PHYSICS.

First Year.—Class I.—None. *Class II.*—None. *Class III.*—Barwick; Nicholson and Ouimet, equal.

PROFESSIONAL PRACTICE.

Fourth Year.—Class I.—Paine, Dowie. *Class II.*—Blanchard. *Class III.*—Gladman and Reid, equal; Kingston.

STRUCTURAL DESIGN.

Fourth Year.—Class I.—Dowie, Reid, Gladman. *Class II.*—None. *Class III.*—None.

STRUCTURAL ENGINEERING.

Fourth Year.—Class I.—Dowie, Reid, Paine. *Class II.*—Gladman; Kingston and Little, equal. *Class III.*—Blanchard.
Third Year.—Class I.—None. *Class II.*—MacDonald, Payne. *Class III.*—Hawkins and Peck, equal.

THEORY OF DESIGN.

Third Year.—Class I.—Hawkins, Payne. *Class II.*—MacDonald and Peck, equal.
Class III.—None.

THEORY OF PLANNING AND MODERN ARCHITECTURE.

Fourth Year.—Class I.—Dowie and Paine, equal; Kingston. *Class II.*—Reid, Blanchard, Gladman. *Class III.*—None.

THESIS.

Fourth Year.—*Class I.*—Kinsgton, Paine, McDougall. *Class II.*—Blanchard and Gladman and Reid, equal; Dowie, Little. *Class III.*—None.
Third Year.—*Class I.*—None. *Class II.*—MacDonald and Richardson, equal; Hawkins and Peck, equal; Payne. *Class III.*—None.
Second Year.—*Class I.*—King, DesRosiers, Barnaby. *Class II.*—Campbell; Lockhart and Richards, equal; Wilson. *Class III.*—None.

(2) *STUDENTS IN OTHER COURSES.*

ACCOUNTING.

Fourth Year.—*Class I.*—Clark, Timberlake. *Class II.*—Derrom, McNab, Slingsby. *Class III.*—Popham.
Third Year.—*Class I.*—None. *Class II.*—McLeod; Kingsley and Morkill, equal. *Class III.*—Bolton, Forbes, Smith (W. R.).

A. C. MACHINERY.

Fourth Year.—*Class I.*—Ferrier, McHenry. *Class II.*—McNaughton, Gilchrist; Boright and MacAfee, equal; Jackson. *Class III.*—Powis, Needham, Kohl, Shanks, Scott (R. W.), Vroom; Fregeau and MacDonald, equal; Gill and Reid (R. H.), equal; Landry and MacDiarmid and Sweetnam, equal; Vinet.

ASSAYING.

Third Year.—*Class I.*—Galloway (J. D.), Eldridge, Cummins. *Class II.*—Jones and Murray, equal; Evans, Galloway (C. C.), Ross, Gillies, Hasbrouck, Robinson. *Class III.*—Buisson, Mallory (F. E.); Holland and Koch and Wünsch, equal; White (J. A. G.) and Young (W. L.), equal; Fortier, Lipsey, Willis (F. S.), Gartshore.

BRIDGE DESIGN.

Fourth Year.—*Class I.*—Openshaw, Sproule; Colter and Jost, equal; Hattie and Smith and Younger, equal. *Class II.*—DeHart and Price, equal; Cole and Robertson, equal; Trench; Anderson and Young, equal; Daubney (C. B.) and Stewart (R. B.), equal; Dennis and Hanson, equal; Cowley; Knewstubb and Von Pozer, equal; Ewart and Stark, equal; Scott (O. H.), Cloran; Narraway and Ryley, equal; Malloch and Menzies, equal. *Class III.*—Wyman, Scovil; Goodchild and Goodstone, equal; Mauer, Dakin, Thorne, Ryan.

CHEMISTRY (ANALYTICAL).

Fourth Year (*Chemistry Course*).—*Class I.*—None. *Class II.*—Campbell. *Class III.*—None.
Fourth Year (*Metallurgy Course*).—*Class I.*—None. *Class II.*—None. *Class III.*—Williams.
Third Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Porter.

CHEMISTRY (INDUSTRIAL).

Fourth Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Williams.

CHEMISTRY (INORGANIC QUALITATIVE ANALYSIS).

Second Year (*Chemistry and Metallurgy Courses*).—*Class I.*—Hyman. *Class II.*—McDougald, Clarke, Shaw. *Class III.*—Best, Austin, Mackintosh, Skelton (R.).

CHEMISTRY (INORGANIC QUANTITATIVE ANALYSIS)

Third Year (*Chemistry and Chemical Engineering Courses*).—*Class I.*—Walker, Macaulay. *Class II.*—None. *Class III.*—None.

CHEMISTRY (ORGANIC).

Third Year.—*Class I.*—Walker. *Class II.*—Macaulay. *Class III.*—None.

CHEMISTRY (PHYSICAL) AND LABORATORY.

Fourth Year.—*Class I.*—Campbell. *Class II.*—None. *Class III.*—None.

CHEMISTRY (PHYSICAL).

Third Year.—*Class II.*—None. *Class II.*—None. *Class III.*—Walker.

CHEMISTRY (QUALITATIVE ANALYSIS).

Third Year.—*Class I.*—Galloway (J. D.). *Class II.* — Murray and Robinson, equal; Oughtred, Eldridge; Evans and Ross, equal; Galloway (C. C.). *Class III.* — Stevenson, Jones; Gillies and Holland and Koch, equal; Willis (F. S.); Fortier and Lipsey, equal; Cummins and Gartshore, equal.

CHEMISTRY.

Second Year.—*Class I.*—Weir, Skelton (R.), Tebbutt; Davis and Hyman, equal; Macleod (D. L.), Hayward. *Class II.*—Duggan; Calkins and Jelly and Shaw, equal; Barnes, Gass; MacDermot and Ryan, equal; Gnaedinger and McDougald and Salter and Schippel, equal; Cummer and Peden, equal; Lefebvre, Stroud. *Class III.*—Cohen (N. B.) and Kirby and Robertson, equal; Cash, Bell (D. A. S.); Biddulph and Goode and Hall and Hutchins and Johnson and Robb, equal; Cooper and Heward and Jordan and Saunders, equal; Abbott and Hanington and Whittall, equal; Bolan and Lapp and Randolph and Reinhardt and Traversy and Weber and Wheatley, equal; Edwards and Garth, equal; Bonyun and DesRosiers (A.) and Kearns and McMahon and May and Norris, equal; Burr and Veilleux, equal; Starke; Angus and Lesage and Warburton; equal; Smith and Vallance, equal; Boyd (T. B.) and McCammon, equal; Best and Downes and Lynch (J. A.) and McCuaig, equal; Lynch (T. L.) and Nichols and Sherman, equal; Boyd (W. W.) and Mather, equal; Hughson and Wilson (W. B.), equal; Brown and Casey and Hadley and Hugessen and McLeod (C. K.) and Rolland, equal.

COLLOQUIUM.

Fourth Year (*Metallurgy Course*).—*Class I.*—None. *Class II.*—None. *Class III.*—Williams.

Fourth Year (*Mining Course*).—*Class I.*—Gillies, Rutherford, McLean; Cowles and Gibbins, equal. *Class II.*—Fowler; Brown and Brunton and Cox and Meek, equal; Archibald and Fox, equal; Ayer and Pearce and Simpson, equal; Burland and Stuart (A. G.), equal; Elkins, Haultain, Strong. *Class III.*—Maltby, Buisson, Bregent, Macfarlane.

C. C. MACHINERY.

Third Year.—*Class I.*—Scrivener, Gregory, Motyer, Kearney. *Class II.*—Archibald, Smith (W. P.), Ivey, Dennison, Wood (H. W.). *Class III.*—Davis; Murphy and Staveley, equal; Alward, Pengelley, Ovalle, Irwin, Falcke; Philips and Wilson (T. E.), equal.

DESCRIPTIVE GEOMETRY.

Third Year.—*Class I.*—Willis (G. C.). *Class II.*—Earle, Foster; DeGruchy and Ray, equal; Underhill; Brydone-Jack and Carnwath, equal; Wilson (R. S. L.) and Wood (D. F.), equal; Nares (B. L.), Wood (J. R.). *Class III.*—Dodd and Goodeve and Richardson (C. E.) and Wilson (C. St. J.), equal; Johnston; Clark and Forman and O'Leary and Staveley, equal; Parker; Anderson (A. A.) and Cram and Planche, equal; Bacon and McDonald (P. E.), equal; Boast and Duguid, equal; Kelly, Hooper.

First Year.—*Class I.*—Murphy; Dodd and Macaulay, equal; MacRae (W. A.) and Reeder and Wright, (W. G.), equal: DesRosiers (I.); Eaton and Mais, equal; Chambers, Baily, Eardley-Wilmot, Crewdson, Boire; Burrow and Stone, equal; Berry, Kirby; Brisbane and Mifflen, equal. *Class II.*—Leach; Fitzgerald and Harvey and Lindsay, equal; Murray and Tothill, equal; Goodwin and Jaques, equal; Baker and Gordon, equal; Lyster and Silver, equal; Mitchell (W. G.) and Tait and Webb, equal; Carson and Creighton and Morrow, equal; Grafftey; Egerton and Gilchrist and Lyche and O'Brien (C.), equal; Davidson (C. G.); Chave and Skeete, equal; Joseph. *Class III.*—Adam (R.) and Kirkpatrick, equal; Davies and Kavanagh, equal; Cloran and Hample and Roy, equal; Davidson (D. A. L.), Hamer, Taylor, Pain, Martin; Alexander (E. D.) and Baridon and Coombes and Ludington and McBeath and Wood, equal; Dempster and Wilson (C. P.), equal; Armytage and Bauset, equal; Bignell and Eliasoph and Learned and Warwick, equal; Hooper; Gohier and McCaghey, equal; McConkey; McCuaig and Tett, equal.

DESIGNING.

Fourth Year (*Electrical Engineering Course*).—*Class I.*—Ferrier and Fregeau, equal; MacDiarmid and McHenry, equal; Boright, Reid (R. H.). *Class II.*—Shanks and Vinet, equal; Kohl and Powis, equal; Gill and MacAfee, equal; Alford and Jackson, equal; McNaughton, Vroom; Gomes and Sweetnam, equal. *Class III.*—Dawes and Ross, equal; Macdonald and Needham, equal; Landry; Gilchrist and Scott (R. W.), equal.

Fourth Year (*Mechanical Engineering Course*).—*Class I.*—Fisher, Stackhouse, Dobson. *Class II.*—Daubney (J. E.), Magrath, Grahame (D. F.), Blackett, Donald, Adrian. *Class III.*—Wilson; Beagley and Macrea, equal; MacKay (E.), Lomer, Hollinsed, Ekers, Buttenshaw, Graham (H. M.).

ECONOMICS.

Third Year.—Class I.—McLeod and Morkill, equal. *Class II.*—Forbes and Kingsley and Mayette, equal. *Class III.*—None

ELECTRIC LIGHT AND POWER DISTRIBUTION.

Fourth Year.—Class I.—McHenry, MacAfee, Kohl, Fregeau. *Class II.*—Gill, Ferrier, Needham, Boright, McNaughton, Gilchrist, Macdonald, Shanks; MacDiarmid and Vroom, equal. *Class III.*—Jackson; Powis and Reid (R. H.), equal; Dawes, Sweetnam, Vinet; Gomes and Landry, equal.

ELECTRIC TRACTION.

Fourth Year.—Class I.—Boright, Reid (R. H.), Shanks; Gill and Jackson and McHenry, equal. *Class II.*—Landry and McNaughton, equal; Kohl, Powis, Vroom; Fregeau and MacDiarmid, equal; Ferrier and Macdonald, equal; Vinet, MacAfee, Ross. *Class III.*—Gilchrist and Needham, equal; Scott (R. W.); Sweetnam, Alford.

ELECTRICAL MEASUREMENTS.

Third Year.—Class I.—Scrivener, Motyer, Staveley. *Class II.*—Gregory, Archibald, Smith (W. P.), Kearney; Alward and Irwin and Murphy, equal; Hudson and Wood (H. W.), equal; Dennison and Ivey, equal. *Class III.*—Wilson (T. E.), Pengelley, Millican, Davis, Philips, Dibblee, Gall, Dixon.

ELECTRO-CHEMISTRY AND LABORATORY (APPLIED).

Third Year.—Class I.—Scrivener, Gregory; Smith (W. P.) and Wood (H. W.), equal; Falcke and Ivey, equal; Motyer, Kearney; Dennison and Staveley, equal. *Class II.*—Wilson (T. E.); Ovalle and Pengelley, equal; Alward, Davis, Hudson; Archibald and Murphy, equal. *Class III.*—Philips, Irwin, Dibblee, Ralston, Nares (H. G.).

ELECTRO-METALLURGY.

Fourth Year (Chemistry, Electrical Engineering and Metallurgy Courses).—Class I.—McHenry, Campbell, Boright, MacAfee, Gill, Reid, (R.H.) *Class II.*—Kohl and Williams, equal; McNaughton, Powis, MacDiarmid, Needham, Fregeau; Macdonald and Scott (R. W.), equal; Vinet, Jackson, Vroom, Dawes. *Class III.*—Alford.

Fourth Year (Mining Engineering Course).—Class I.—Gillies. *Class II.*—Cowles, Brown; Ayer and Fowler, equal; Gibbins; Burland and Elkins and Simpson, equal. *Class III.*—Bregent, Cox, Brunton Maltby and Strong, equal; Haultain and McLean and Meek and Pearce and Rutherford and Stuart (A. G.), equal; Archibald and Macfarlane, equal.

ELEMENTS OF ELECTRICAL ENGINEERING.

Fourth Year (Civil, Metallurgy, Mining and Transportation Courses).—Class I.—Campbell, de Hart; Ayer and Gillies and Price, equal; Derrom and Ewart and Haultain, equal; Anderson and Popham and Trench, equal; Cowley and Stewart (R. B.), equal. *Class*

II.—Cowles and Sproule, equal; Clark and Narraway, equal; Brown and Dennis and Gibbins, equal; Williams; Colter and Fowler and Goodstone, equal; Wyman; Elkins and Younger, equal; Jost and Macfarlane, equal; Hanson and Knewstubb, equal; McLean; Cox and Scovil and Smith, equal; Bregent and McNab and Simpson, equal; Timberlake; Malloch and Strong and Von Pozer, equal; Cloran and Stuart (A. G.), equal. *Class III.*—Dakin and Thorne and Young, equal; Burland and Pearce, equal; Maltby and Meek and Menzies, equal; Daubney (C. B.) and Hattie, equal; Mauer; Brunton and Ryan, equal; Ryley, Cole, Rutherford, Stark, Robertson; Goodchild and Morison, equal.

Third Year (*Mechanical Engineering Course*).—*Class I.*—Gnaedinger and Linagh, equal. *Class II.*—Briercliffe; Hargraft and Scott, equal; Webb, Brotherhood. *Class III.*—Skelton, Campbell (C.).

ENGINEERING ECONOMICS.

Third Year.—*Class I.*—Galloway (J. D.) and Scrivener, equal; Wilson (R. S. L.); Evans and Forman, equal; Oughtred, Murray. *Class II.*—Hargraft and Johnston, equal; Wunsch; Boast and Campbell (W. B.), equal; Linagh and Nares (B. L.), equal; Earle and Watson, equal; Koch; Brydone-Jack and Fraser and Macaulay and Staveley, equal; Hasbrouck and Willis (G. C.), equal ; Eldridge, Carnwath, O'Leary; Christie and Dodd, equal; Ross and Roy, equal; Bacon and Gnaedinger, equal; Boyd and Walker, equal; Goodeve; MacAfee and Planche, equal. *ClassIII.*—Underhill; Brotherhood and Webb, equal; Anderson (A. A.) and Briercliffe and Willis (F. S.), equal; Child and Ray and Wilson (T. E.), equal; Wilson (C. St. J.), Campbell, Galloway (C. C.); DeGruchy and Parker and Scott and Wood (D. F.), equal; Cahan, Mallory (G. E. L.), Clark; Gillies and McDonald (P. E.) and Thompson, equal; Collier; Flewin and Young (J. B.), equal; Elliott and Hooper and Skelton, equal; Holland and Richardson (C. E.) and Walcott, equal; Cummins and Gartshore and Kelly and Oliver and Pope and Seath and Stevenson and White (J. A. G.), equal.

ENGINEERING LAW.

Fourth Year.—*Class I.*—Fisher. *Class II.*—Price, Stark, Cowles, Gillies, Smith, Fowler, Trench; Colter and Dakin and Stewart (R. B.), equal; Brunton and Dobson and MacKay (G. W.) and Young, equal. *Class III.*—Beagley and Cahan and Campbell and Paine and Wilson, equal; Anderson and Brown and Gladman and Harris (H. W.) and Scovil, equal; McLean; Ayer and Burland and Hattie and Magrath and Sproule and Stackhouse and Von Pozer, equal; Adrian and Cole and Dowie and Jost and Mauer and Simpson, equal; Archibald and Blackett and Blanchard and deHart and Duguid and Elkins and Goodstone and Hollinsed and Little and MacKay (E.) and Narraway and Reid (A. C.), equal; Cloran and Ewart and Gibbins and Haultain and Macfarlane, equal; Dennis and Knewstubb and Rutherford, equal; Kingston and McDougall and Wyman and Younger, equal; Cowley and Fox, equal; Daubney (C. B.) and Malloch, equal; Hanson and Strong and Williams, equal; Cox and Day and Maltby and Menzies, equal; Buttenshaw and Daubney (J. E.) and Donald and Lomer and Macrae and Meek and Pearce and Robertson and Stuart (A. G.), equal; Bregent and Cook and Ekers and Ryley, equal.

Third Year.—*Class I.*—Roy. *Class II.*—McLeod, Wood (J. R.). *Class III.*—Bolton, Morkell, Kingsley, Forbes.

ENGLISH.

Fourth Year.—*Class I.*—None. *Class II.*—Derrom; Clark and Timberlake, equal; McNab. *Class III.*—Popham.

Third Year.—*Class I.*—None. *Class II.*—McLeod, Morkill, Kingsley. *Class III.*—Forbes.

First Year.—*Class I.*—Morrow; Crossfield and Mitchell (W. G.), equal. *Class II.*—Harrison and Wright (W. G.), equal; Baily and Gilmour and Gordon and Mifflen, equal; Tothill; Davies and Lindsay, equal; Chave and Wilson (W. J.), equal; Davidson (D. A. L.) and Jaques and Stone, equal; Crewdson and Hamer, equal; Calder and Murphy and Nicholson, equal; McEvenue; Eaton and Fitzgerald and Mc Donald (L. M.) and Thompson, equal. *Class III.*—Baridon and Kirby and Monat, equal; Berry and Carson and McCuaig and McRae (J. G.) and Paterson, equal; Lyche and Reeder, equal; Alexander (W. B.) and Baker and Bauset and Buckman and Gilchrist and McGregor and Mitchell (L. S.), equal; Hughes; Burnett and Calder and Grafftey and Leach and Murray and Sawers, equal; Tait and Wilson (C. P.), equal; Dempster and Hooper and Kavanagh and Mathewson and Silver and Webb, equal; Gomez and Harvey, equal; Macaulay and Taylor, equal; Creighton and McConkey and Warwick, equal; Boire and Chambers and Cooke and Dougall and Hanley and Kirkpatrick and Learned and Mais and Pickel and Skeete, equal; Goodwin and Hebden and MacRae (W. A.), equal; Adam (J. A.) and Eliasoph, equal; Burrow and Draper and Panet-Raymond and Wood, equal; Berrill and Egerton and Fyles, equal.

EXPERIMENTAL PHYSICS.

Second Year.—*Class I.*—Davis; Calkins and Weir, equal; Hayward, Tebbutt; Macleod (D. L.) and Ryan, equal; Schippel. *Class II.*—Barnes and DesRosiers (A)., equal; Hutchins Peden; Armstrong and McGannon and Stroud and Weber, equal; Cummer and Hall and Hyman, equal; Duggan and Skelton (R.), equal; Boyd (W. W.), Heward; Kearns and McRae (J. P.) and Norris, equal; May and Veilleux, equal; Abbott and Beauvais and Chaffey, equal; Randolph; Cummins and MacKinnon and Saunders, equal; Cassels; McLennan and McNiven and Robb and Robertson, equal. *Class III.*—McGregor; Clarke and Cohen (M. J.), equal; Casey and Johnson and Wade, equal; Shaw; Bagshaw and Cash, equal; Goode and Jelly and Lapp, equal; Biddulph and Irwin and Wilson (W. B.), equal; Gass and Gnaedinger and Lynch (T. L.), equal; Bell (D. A. S.) and Kirby and Reinhardt and Rennoldson and Starke, equal; Boyd (T. B.) and Cohen (N. B.) and Cooper and Edwards and Hugh-Jones and MacDermot and Prince and Sherman, equal; Brown and Downes and Lefebvre and McMahon and McMaster, equal; Burr and Wheatley, equal; Fay, Bolton, Whittall; Hadley and Stevens, equal; Woodyatt; Angus and McDougald and Mallory (G. E. L.) and Nichols and Salter, equal.

First Year.—*Class I.*—Murphy, Crewdson, Dodd, Wright (W. G.), Eaton, Mifflen; Lindsay and Reeder, equal; Chambers. *Class II.*—Chave, Mais, Tait; Burrow and Davidson (D. A. L.) and Eardley-Wilmot, equal; Berry and Jaques, equal; MacRae (W. A.); Crossfield and McBeath and Tett, equal; Alexander (W. B.), Joseph; Baily and

Boire and Creighton and Lyche and Roy, equal; Gilchrist; Hamer and Skeete,equal; Fitzgerald and Hample and Lyster and Price,equal; Gordon and McEvenue, equal; Cooke and Gomez and Hooper and Learned, equal; Dempster and Morrow, equal; Baker and Carson and Mitchell (W. G.) and Murray and Silver and Stone and Taylor, equal. *Class III.*—Grafftey and McDonald (L. M.), equal; Baridon and Brisbane and Egerton and Tothill and Warwick, equal; Kavanagh and Kirkpatrick, equal; Davies and Harvey and Masson (W. G.) and Monat, equal; Coombes and Eliasoph and Harrison and Hebden and McCuaig and Macdonald (N. M.), equal; Fyles; Bell (W. E.) and Roche, equal; Burnett and Thompson, equal; Paterson; Macaulay and O'Brien (C), equal; Bignell and Kirby and McRae (J. G.), equal; Calder and Pain and Wilson (C. P.), equal; Martin and Panet-Raymond and Wood, equal; Armytage and Dougall and Goodwin and Underhill and Wilson (W. J.), equal; Duval (L. M.) and Hanley and Leach and Pickel and Savage and Thom, equal; Davidson (C. G.); Suckling and Webb, equal; Mitchell (L. S.); Mathewson (S. J.) and Metcalfe and Morton, equal; Buckman and Draper and Ludington and O'Donnell and Pontbriand and Ryan and Sawers, equal.

FOUNDATIONS AND MASONRY.

Third Year.—Class I.—Earle and Whyte (H. E.), equal; Bacon and Willis (G. C.) equal; Ray and Wilson (R. S. L.), equal; Boast and Wood (D. F.), equal; Underhill, Collier; deGruchy and Nares (B. L.) and Smith (W. R.), equal. *Class II.*—Carnwath, Wilson (C. St. J.); Brydone-Jack and McLeod, equal; Parker; Child and Forbes, equal; Forman and Hooper and Planche, equal; Anderson (A. A.) and Dodd and Wood (J. R.) and Young (J. B.), equal; Goodeve and Johnston and Morkill, equal; Foster, Connolley, McDonald (P. E.); Bolton and Richardson (C. E.), equal; O'Leary; Elliott and Oliver and Walcott, equal; Clark, Thompson; Fraser and Kelly and Pope, equal. *Class III.*—Cram, Kingsley, Watson, Christie.

FREEHAND DRAWING.

First Year.—Class I. — Reeder, Mais; Boire and Hebden, equal; Kirby, Baily, Goodwin; Chambers and Davidson (D. A. L.) and Leach, equal; Morrow and Skeete, equal; Berry and Eardley-Wilmot and Egerton, equal. *Class II.*—Burrow and Eaton and Wright (W. G.), equal; Davidson (C. G.) and Doyon, equal; Crewdson and Harrison and MacRae (W. A.), equal; Bauset and Tait and Webb, equal; Bignell and Kirkpatrick and Mitchell (W. G.), equal; Harvey and Silver and Tothill, equal; Baker and Panet-Raymond, equal; Macaulay and Murphy, equal; Fitzgerald, Dodd, Mifflen; Baridon and Hample and Harris and Pickel and Tett and Wood, equal; Dixon and Gilchrist and Masson, equal; Cooke and Grafftey and Jaques and Murray and Wilson (C. P.), equal; Brisbane and Lindsay and McDonald (L. M.) and Thompson, equal; Ludington and McCuaig, equal; Gordon and Learned and Mathewson, equal. *Class III.*—Morton; Calder and Cloran and Davies and Fyles and Ryan, equal; Ashby; Brown (M. B.) and Buckman, equal; Ekers and Eliasoph and Hamer and McCaghey, equal; Dalton and Mitchell (L. S.), equal; Gomez and Taylor, equal; Berrill and Gilmour, equal; Joseph; Hanley and Martin, equal; Alexander (W. B.) and Duval (L. M.) and McBeath and Price, equal; Crossfield and Dougald, equal; Hooper and McEvenue, equal; Dempster and Roy, equal; Lynch and Paterson and Wilson (W. J.), equal.

FREIGHT SERVICE.

Fourth Year.—*Class I.*—McNab, Slingsby, Timberlake. *Class II.*—Clark, Derrom. *Class III.*—Popham.
Third Year.—*Class I.*—Kingsley. *Class II.*—Morkill, McLeod, Forbes. *Class III.*—Bolton, Smith (W. R.).

GEODESY.

Fourth Year.—*Class I.*—Price, Jost, Openshaw. *Class II.*—Younger, Smith (A. W.), deHart, Trench, Goodstone; Cloran and Menzies and Von Pozer, equal; Robertson, Colter, Cowley; Dennis and Sproule, equal; Anderson and Cole and Stewart (R. B.), equal; Ewart and Harris (H. W.) and Hattie, equal; Narraway and Wyman and Young, equal. *Class III.*—Daubney (C. B.) and Stark, equal; Scott (O. H.), Knewstubb, Mauer, Ryley, Scovil, Malloch, Thorne; Goodchild and Hanson, equal.

GEODETIC FIELDWORK.

Fourth Year.—*Class I.*—Hattie. *Class II.*—Price and Sproule, equal; Jost and Robertson, equal; Younger, Openshaw, Scott (O. H.); Colter and Von Pozer, equal; Anderson and Menzies and Smith and Wyman, equal; Cowley, Young; Ewart and Stewart (R. B.), equal; Dakin and Dennis, equal; Narraway; Cloran and Malloch, equal. *Class III.*—Cole and Harris (H. W.), equal; deHart and Ryley, equal; Scovil, Duguid, Daubney (C. B.), Hanson, Knewstubb; Goodstone and Trench, equal.

GEOLOGY AND ORE DEPOSITS.

Fourth Year.—*Class I.*—Cowles, Brunton. *Class II.*—Simpson, Brown, Fowler; Elkins and Gibbins and Rutherford, equal; Macfarlane, Pearce, McLean; Ayer and Gillies and Meek, equal; Burland and Maltby, equal; Archibald, Cox, Strong. *Class III.*—Stuart (A. G.), Bregent, Haultain, Durant.

GEOLOGY AND PETROGRAPHY.

Fourth Year.—*Class I.*—Cowles and Simpson, equal; Brown and Rutherford, equal. *Class II.*—McLean, Brunton; Ayer and Fowler, equal; Gibbins, Burland, Archibald, Haultain, Gillies, Elkins, Cox, Stuart (A. G.), Pearce, Strong. *Class III.*—Meek; Bregent and Macfarlane, equal; Maltby, Morison; Durant and Fox, equal.

GEOLOGY.

Third Year.—*Class I.*—Galloway (J. D.), Eldridge, Earle, Murray, Underhill, Carnwath. *Class II.*—Macaulay and Oughtred and Willis (G. C.), equal; Porter and Wilson (C. St. J.), equal; Collier and Gillies, equal; Bacon and Clark, equal; Evans and Koch, equal; Child and Johnston, equal; Nares (B. L.); Brydone-Jack and Fortier and Hooper and Parker and Willis (F. S.), equal; Forman and Goodeve and Watson, equal; McDonald (P. E.) and Ray and Wilson (R. S. L.) and Wood (D. F.) and Wood (J. R.), equal; Foster and Stevenson, equal; Kelly; deGruchy and Galloway (C. C.) and Jones equal. *Class III.*—O'Leary and Richardson (C. E.) and White

(J. A. G.), equal; Christie, Holland; Boast and Elliott, equal; Connolley and Cummins and Thompson, equal; Gartshore; Anderson (A. A.) and Oliver, equal; Cram, Walcott, Planche, Pope, Young (J. B.). PASSED.—Wunsch.

GRAPHIC STATICS.

Second Year.—Class I.—Peden, Schippel; Cohen (M. J.) and Davis and Duggan, equal. *Class II.*—Norris; Gass and McLellan, equal; Calkins and Hayward, equal; Macleod (D. L.) and McRae (J. P.), equal; Stroud and Traversy, equal; Kirby; Bonyun and Rolland and Tebbutt, equal; Boyd (T. B.) and Smith, equal; Randolph; DesRosiers (A.) and McGannon and Ryan and Warburton, equal; Weber and Weir, equal; Bagshaw and Hadley and McNiven, equal; Reinhardt and Robertson and Vallance, equal; Gnaedinger and May and Sargent, equal; Barnes and Hughson, equal. *Class III.*—Hutchins and Macrae (L. P.), equal; Armstrong and Bell (D. A. S.) and Fay and McLeod (C. K.), equal; Roy and Whittall, equal; Cummer and Lesage, equal; Garth and McMahon and Ralston and Starke and Wheatley, equal; Kearns and Lauder, equal; Angus and Downes, equal; Irwin and Jelly and MacDermot, equal; Hall and Saunders, equal; Cassels and Edwards, equal: Hanington and Lefebvre, equal; Cooper and McCuaig, equal; Fleming and Masson, equal; Heward and McGregor and Nichols and Redpath, equal; Brown and Cash and Duffield and MacKinnon and Stevens, equal; Burr and Cohen (N. B.) and Goode and Lynch (T. L.) and Veilleux, equal; Bolan and Hugessen, equal; Casey and Legris and McGammon and Robb and Sherman and Wade and Wilson (W. B.), equal.

HARBOUR ENGINEERING.

Fourth Year.—Class I.—Openshaw, Hanson, Price, Magrath, Stewart (R. B.); Anderson and deHart and Thorne, equal; Ryley, Smith, Younger; Hattie and Robertson, equal; Clark and Cloran, equal. *Class II.*—Macfarlane and Malloch, equal; Cowley, Fowler, Menzies, Scott (O. H.); Trench and Wyman, equal; Daubney (C. B.), Dennis; Beagley and Gillies and Narraway and Pearce, equal; Vinet and Young, equal; Goodstone, Cahan; Knewstubb and Mauer, equal; Fisher and Jost, equal; Ewart and Harris (H. W.) and Stackhouse, equal; Stark. *Class III.*—Von Pozer, Scovil, Daubney (J. E.).

Third Year.—Class I.—Willis (G. C.), Bacon; Clark and McLeod and Smith (W. R.), equal. *Class II.*—Earle, Planche; Boast and Child and McDonald (P. E.), equal; Forbes; Brydone-Jack and Johnston and Thompson; equal; Wilson (C. St. J.), Fraser, Ray; Anderson (A. A.) and Dodd, equal; Forman and Watson, equal; Whyte (H. E.), Kelly. *Class III.*—deGruchy, Carnwath, Oliver, Richardson (C. E.), Campbell, Collier.

HYDRAULICS.

Fourth Year.—(Complete Course).—Class I.—Trench, Price; deHart and Fisher, equal; Jost and Sproule, equal. *Class II.*—Gilchrist, Magrath, Colter, Ferrier, Smith; Cloran and Cowley, equal; Anderson and Cole and Malloch, equal; Daubney (J. E.) and Dennis and Robertson, equal; Beagley, Younger, Adrian. *Class III.*—Daubney (C. B.) and Stewart (R. B.), equal; Ewart and Narraway and Scott

(O. H.) and Stackhouse, equal; Hattie, Von Pozer, Young; Goodstone and Menzies and Sweetnam, equal; Buttenshaw and Scovil, equal; Cook and Gomes and Lomer and Shanks, equal; Grahame (D. F.) and Mauer and Stark, equal; Ryley; Ekers and Graham (H. M.) and Wyman, equal; Knewstubb; Blackett and Dobson and Thorne, equal.

Fourth Year (Partial Course).—Class I.—Cowles. *Class II.*—Boright, Gill; McHenry and McNaughton and Rutherford, equal; Gillies, Campbell; Archibald and Kohl and Landry and Needham, equal; Dawes and Gibbins and Williams, equal; Fowler and MacAfee and Simpson, equal; Ayer and Burland and McLean, equal; Haultain and Strong, equal; Cox and Fregeau and Powis, equal; Brunton and Macdonald and Reid (R. H.) and Stuart (A. G.), equal; Pearce; Brown and Jackson and MacDiarmid and Macfarlane and Vroom, equal.

LABORATORIES.

A. C. LABORATORY.

Fourth Year.—Class I.—McNaughton, McHenry; Boright and Kohl, equal. *Class II.*—Fregeau, MacDiarmid, Powis, Shanks; Ferrier and MacAfee, equal; Gill; Gilchrist and Needham, equal; Macdonald, Vroom, Vinet. *Class III.*—Reid (R. H.) and Sweetnam, equal; Dawes, Alford; Jackson and Scott (R. W.), equal; Gomes and Landry, equal; Ross.

ANALYTICAL CHEMISTRY LABORATORY.

Fourth Year (Chemistry Course).—Class I.—None. *Class II.*—Campbell. *Class III.*—None.

Fourth Year (Metallurgy Course).—Class I.—None. *Class II.*—None. *Class III.*—Williams.

Third Year (Chemistry Course).—Class I.—Walker. *Class II.*—Macaulay. *Class III.*—None.

Third Year (Metallurgy Course).—Class I.—None. *Class II.*—None. *Class III.*—Porter.

CHEMICAL LABORATORY.

Fourth Year (Mining Engineering Course).—Class I.—Rutherford, Cowles. *Class II.*—Gillies, Brown, McLean, Fowler, Simpson, Ayer; Brunton and Meek and Stuart (A. G.), equal. *Class III.*—Macfarlane and Strong, equal; Haultain and Pearce, equal; Gibbins; Cox and Maltby, equal; Archibald and Bregent, equal; Fox, Burland.

Second Year.—Class I.—Hayward and Tebbutt, equal; Gass and Gnaedinger and Macleod (D. L.), equal; Davis, Biddulph, Ryan; Barnes and Hanington and McRae and Norris and Randolph and Robertson and Schippel and Stroud, equal. *Class II.*—MacDermot; Calkins and Heward, equal; Hutchins and Johnson and May and Weir, equal; Jelly; Edwards and Hadley and Lefebvre and Roy, equal; Alexander and Whittall, equal; DesRosiers (A) and Goode and Traversy, equal; Bonyun and Hall and Starke, equal; Cummer and Duggan and Peden and Weber, equal; Boyd (W. W.) and Downes and Fay and McMahon and Robb and Saunders, equal; Burr and Lesage and Wheatley, equal; Cash and Cooper and Hughson and Rolland and Salter and Veilleux, equal; Hull and

Jordan and Nicholls and Reinhardt and Vallance, equal; Lauder and Turnbull and Wilson (W. B.), equal; Bell (D. A. S.) and Graham (E. J.) and Kearns and Pain and Pullen and Sherman, equal; Angus and Casey and McLeod (C. K.) and Smith, equal; Cohen (N. B.) and Stevens, equal; Duffield and Thomas and Warburton, equal. *Class III.*—Bolan and McCammon, equal; Lynch (T. L.); Brown and LaForest, equal; Boyd (T. B.) and Hugessen, equal; Lapp and Mather, equal; Kirby and Masson, equal; McCuaig; Clawson and Lindsay, equal; Gohier and Prince and Routledge, equal; Gougeon, McMaster, Mallory, Demers; Abbott and Legris, equal;

CHEMICAL LABORATORY (ORGANIC).

Third Year.—Class I.—Macaulay. *Class II.*—Walker. *Class III.*—None.

CHEMICAL LABORATORY (QUALITATIVE).

Second Year (Chemistry and Metallurgy Courses).—Class I.—Hyman and Shaw, equal. *Class II.*—Skelton (R.), McDougald; Clarke and Austin, equal; Best. *Class III.*—Mackintosh.

CHEMICAL LABORATORY (QUALITATIVE ANALYSIS).

Third Year.—Class I.—Galloway (J. D.), Eldridge. *Class II.*—Oughtred, Galloway (C. C.), Murray; Gillies and Jones and Koch and Robinson and Ross, equal. *Class III.*—Flewin and White (J. A. C.), equal; Fortier; Austin and Evans and Holland and Stevenson, equal; Willis (F. S.).

C. C. LABORATORY.

Third Year.—(Electrical Engineering Course).—Class I.—Kearney and Scrivener, equal; Gregory and Motyer, equal. *Class II.*—Staveley, Dibblee, Archibald, Wood (H. W.), Irwin, Hudson, Smith (W. P.), Pengelley; Davis and Dixon, equal; Nares (H. G.), Darling, Falcke, Anderson (J. G.), Wilson (T. E.), Millican. *Class III.*—Ivey, Alward, Ovalle, Murphy, Dennison, Ralston, Gall, Philips.

ELECTRO-METALLURGY LABORATORY.

Fourth Year.—Class I.—Boright; Jackson and Needham, equal. *Class II.*—MacDiarmid, McHenry; Kohl and Macdonald and Reid (R. H.) and Vroom, equal; Alford and MacAfee, equal; Scott (R. W.); Dawes and McNaughton, equal; Vinet; Fergeau and Powis, equal. *Class III.*—Landry, Gill.

ELEMENTS OF ELECTRICAL ENGINEERING LABORATORY.

Fourth Year (Civil, Metallurgy, Mining and Transportation Courses).—Class I.—Sproule, Brown. Timberlake; Smith and Young, equal; Cowles; Cloran and Colter, equal; Campbell and Jost, equal. *Class II.*—McNab, Clark, Stuart (A. G.); Anderson and Burland and Cowley and Ewart and Simpson, equal; Knewstubb; Dakin and Gibbins and Hattie, equal; Archibald and Popham, equal; Cox and Dennis and Derrom and Meek and Pearce and Von Pozer, equal; Gillies and Stewart (R.B.), equal ; Ayer and Menzies, equal; Haultain and Price, equal; Cole and McLean and Narraway and Robertson and Wyman, equal; Younger; Daubney (C. B.) and

Fowler and Macfarlane, equal; Bregent and Elkins and Goodstone and Hanson and Malloch, equal; *Class III.*—Harris (H. W.), Mauer, Stark; deHart and Maltby, equal; Brunton; Cahan and Ryan and Scovil, equal; Rutherford, Ryley, Williams.

Third Year (*Mechanical Engineering Course*).—*Class I.*—None. *Class II.*—Scott; Brotherhood and Gnaedinger, equal; Linagh, Campbell (C.), Skelton, Briercliffe, Webb. *Class III.*—Hargraft.

ELECTRICAL ENGINEERING LABORATORY.

Fourth Year (*Mechanical Engineering Course*).—*Class I.*—Fisher and Magrath, equal; Donald, Ekers, Daubney (J. E.). *Class II.*—Dobson, Adrian, Graham (H. M.), Harris (N. C.), McKay (G. W.), Stackhouse. *Class III.*—Day; Beagley and Lomer, equal; Blackett and Hollinsed, equal; Cook, MacKay (E.), Grahame (D. F.); Buttenshaw and Macrae, equal.

GEODETIC LABORATORY.

Fourth Year.—*Class I.*—Price, Openshaw, Menzies. *Class II.*—Von Pozer, Harris (H. W.), Smith; Robertson and Trench, equal; Ewart; Daubney (C. B.) and Wyman, equal; Cowley and Dakin and Dennis and Narraway, equal; Anderson and Hanson and Scott (O. H.) and Scovil, equal; Stewart (R. B.) and Young and Younger, equal; deHart and Knewstubb and Sproule, equal; Cloran and Colter and Hattie, equal; Goodstone, Jost. *Class III.*—Stark, Ryley, Malloch, Cole, Mauer.

HYDRAULICS LABORATORY.

Fourth Year.—*Class I.*—McNaughton and Sproule, equal; Stewart (R. B.); Beagley and Blackett and Boright and Fisher and Scott (O. H.) and Smith, equal; Hattie and Jost and McHenry and Menzies and Price, equal. *Class II.*—Anderson and Dobson and MacAfee and Narraway and Scovil, equal; Adrian and deHart and Fregeau and Harris (N.C.) and Macrae and Magrath and Mauer and Younger, equal; Cloran and Cole and Dennis and Gill and Graham (H. M.) and Kohl and Robertson and Wyman and Young, equal; Cook and Cowley and Gomes and Powis and Stackhouse and Von Pozer, equal; Daubney (J. E.) and Hollinsed and Macdonald and Malloch and Ryley and Shanks, equal. *Class III.*—Sweetnam; Buttenshaw and Colter and Donald and Ferrier and Goodchild and Landry and Needham and Reid (R. H.), equal; Dawes and Day and Ewart and Gilchrist and Goodstone and Harris (H. W.) and Lomer and MacKay (E.), equal; Alford and Daubney (C. B.) and MacDiarmid and Trench and Vinet and Vroom, equal; Cahan and Duguid and Hanson and Jackson and Knewstubb and Scott (R. W.) and Stark and Thorne, equal.

MECHANICAL ENGINEERING LABORATORY.

Fourth Year (*Electrical Engineering Course*).—*Class I.*—None. *Class II.*—Boright, Ferrier, MacDiarmid; MacAfee and Shanks, equal; Reid (R. H.); Gilchrist and Vroom, equal; McHenry, Needham. *Class III.*—Gill, Dawes; Fregeau and McNaughton, equal; Kohl and Sweetnam, equal; Macdonald and Ross, equal; Jackson, Powis, Scott (R. W.), Alford, Vinet.

Fourth Year (*Mechanical Engineering Course*).—*Class I.*—Fisher and Stackhouse, equal; Magrath, Daubney (J. E.); Beagley and Donald and Wilson, equal. *Class II.*—Grahame (D. F.), Dobson, Adrian, MacKay (E.), Graham (H. M.), Hollinsed. *Class III.*—Buttenshaw and Ekers, equal; MacKay (G. W.), Day, Blackett; Cook and Lomer, equal.

Third Year (*Chemical, Civil, Electrical, Mechanical, Metallurgical and Mining Engineering Courses*). — *Class I.* — Scrivener, Motyer ; Campbell (W. B.) and Child and Gregory, equal; Forman; Carnwath and Linagh, equal; Dodd, Staveley; Gnaedinger and Koch and Murphy and Willis (G. C.), equal. *Class II.*—Earle and Hudson and McDonald (P. E.) and Parker and Ray and Scott, equal; Briercliffe and Smith (W. P.) and Wunsch, equal; Brydone-Jack and Stevenson, equal; Collier and Dennison and Kearney and Nares (H. G.) and Oughtred, equal; Ross; Irwin and Ivey and Pengelley and Wilson (R. S. L.), equal; Bacon and deGruchy and Eldridge and Galloway (C. C.), equal; Morkill and Walker and Wood (J. R.), equal; Archibald and Underhill, equal; Jones and Murray and Ovalle and Skelton, equal; Alward and Davis, equal; Falcke and Whyte (H. E.) and Wilson (C. St. J.), equal; Bolton and Campbell (C.) and Christie, equal; Anderson (J. G.); Boyd (L. C.) and Kelly and Philips and Watson, equal; Clark and Foster and Hargraft and Willis (F. S.), equal; Forbes and Goodeve and Wood (D. F.), equal; Gillies and Planche and Wilson (T. E.), equal. *Class III.*—Cram and Dibblee and Johnston, equal; Brotherhood and Gall and Kingsley and McLeod and O'Leary and Ralston, equal; Millican and Wood (H. W.), equal; Evans and Hooper and Thompson, equal; Boast, Richardson (C. E.); Pope and Walcott, equal; Gartshore and Webb, equal; Oliver and Young (J. B.), equal; Fortier, Elliott; Fraser and White (J. A. G.), equal; Matheson and Smith (W. R.), equal; Cahan; Hasbrouck and Holland, equal.

MINERALOGY LABORATORY.

Third Year.—*Class I.*—Galloway (J. D.), Eldridge; Hasbrouck and Murray, equal; Macaulay; Porter and Walker, equal. *Class II.*—Evans, Ross, Oughtred, Koch, Willis (F. S.), Fortier, Gillies. *Class III.*—Flewin, Holland, White (J. A. G.).

METALLURGICAL AND MINING LABORATORY.

Fourth Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Porter, Williams.

ORE DRESSING LABORATORY.

Fourth Year (*First Term*).—*Class I.*—Gillies, Cowles. *Class II.*—Archibald; Brunton and Gibbins, equal; Strong; Ayer and Cox, equal; Brown and Burland and Fowler and McLean, equal; Elkins and Pearce and Rutherford and Stuart (A. G.), equal; Fox, Simpson; Buisson and Haultain and Meek, equal; Bregent and Macfarlane and Maltby, equal. *Class III.*—Durant.

Fourth Year (*Second Term*).—*Class I.*—Cowles, Gillies, Gibbins. *Class II.*—Burland; Archibald and Fowler and Strong, equal; Ayer and Brunton and Cox, equal; Brown and Fox and McLean, equal; Elkins and Rutherford, equal; Meek and Pearce and Simpson, equal; Haultain and Maltby and Stuart (A. G.), equal. *Class III.*—Bregent and Buisson and Macfarlane, equal.

Third Year.—Class I.—Eldridge, Galloway (J. D.), Koch. *Class II.*—Jones, Evans, Galloway (C. C.), Wunsch; Gartshore and Oughtred, equal; Buisson; Hasbrouck and Willis (F. S.), equal. *Class III.*—Ross, Flewin, Gillies, Holland; Stevenson and White (J. A. G.), equal; Murray.

PHYSICAL LABORATORY.

Third Year.—Class I.—Scrivener, Pengelley; Kearney and Wilson (T. E.) and Wood (H. W.), equal; Motyer. *Class II.*—Dennison and Millican, equal; Dibblee; Alward and Davis and Dixon and Gregory and Staveley, equal; Irwin and Murphy and Nares (H. G.) and Philips, equal. *Class III.*—Falcke; Anderson (J. G.) and Gall and Ivey and Smith (W. P.), equal; Hudson, Archibald.

Second Year.—Class I.—Tebbutt; Hadley and Hayward, equal; Heward and Skelton (R.), equal; Norris, Shaw, Weir, Peden; Duggan and Hall and Randolph, equal. *Class II,*—Davis; McRae (J. P.) and Stroud, equal; Hyman, Salter; Calkins and Cummer, equal; Ryan; Cohen (N. B.) and Reinhardt and Schippel, equal; Gass; Barnes and McMahon and Robertson, equal; Gnaedinger and Whittall, equal; DesRosiers (A.) and Hutchins and Wheatley, equal; Fay and Nichols, equal; Johnson; Armstrong and MacDermot and Robb, equal; Jelly and Lefebvre and McGannon, equal; Bell (D. A. S.) and Macleod (D. L.), equal. *Class III.*—Boyd (T. B.) and Burr and Weber, equal; May; Boyd (W. W.) and McDougald, equal; Goode and Saunders ,equal; Casey and Cassels and Kearns, equal; Edwards; Downes and Kirby and Stevens, equal; Angus and Rennoldson, equal; Brown; Hugh-Jones and Lynch (T. L.), equal; Beauvais and Clark and Mallory and Veilleux, equal; Cummins and Prince and Wilson (W. B.), equal; Starke; Abbott and Biddulph and Futterer and Sherman and Woodyatt, equal.

First Year.—Class I.—Crewdson, Grafftey, Baker, McDonald (L. M.); Crossfield and Eaton, equal; Gordon and MacRae (W. A.) and Murphy and Roche and Wright (W. G.), equal. *Class II.*—Eardley-Wilmot, Baily; Bignell and Lindsay, equal; Chambers and Joseph and Mais, equal; Dodd and Hanley and Mitchell (W G.) and Panet-Raymond, equal; Hample and McCuaig and Martin, equal; Webb ; Burrow and Goodwin and Roy, equal; Learned and Morrow and Wood, equal; Gomez and Pickel and Tait and Tett and Wilson (C. P.), equal; Jaques; Boire and Hamer and Hebden and Reeder and Taylor, equal; Eliasoph and Harrison and Mifflen and Skeete, equal; Baridon and Berry and Hooper and Kirby and Murray, equal; Davidson (C. G.) and Davies and Mathewson and Ouimet, equal; Buckman and Dempster and Dougall and Kirkpatrick and Lyster and Morton and Wilson (W. J.), equal; Cooke and Thompson and Tothill, equal; O'Donnell and Paterson, equal; Calder and McEvenue and Ryan, equal; *Class III.*—Fyles and Harvey, equal; Macdonald (N. M.) and Thom, equal; Fitzgerald Mitchell (L. S.); Ludington and McBeath and Masson and Pontbriand, equal; Gilchrist and Macaulay, equal; Alexander (W. B.) and Duval (L. M.), equal; Monat, Leach, Savage, Barwick, Kavanagh, Price; Bell (W. E.) and Brisbane and Davidson (D. A. L.) and Egerton and Metcalfe and Nicholson and Silver and Suckling, equal.

STRENGTH OF MATERIALS LABORATORY.

Third Year.—Class I.—Linagh and Scrivener, equal; Oughtred; Galloway (J. D.) and Gregory, equal; Kearney. *Class II.*—Dodd, Campbell (W. B.); Carnwath and Earle and Walker, equal; Willis (G. C.); Brydone-Jack and Dennison, equal; Eldridge and Underhill, equal; Staveley, Brotherhood, Archibald and Ivey and Johnston, equal; Wilson (R. S. L.); Murray and Walcott, equal; Anderson (A. A.) and Nares (B. L.) and Nares (H. G.) and Whyte (H. E.), equal; Smith (W. P.) and Webb, equal; Collier and Gnaedinger and Ray and Wunsch, equal. *Class III.*—Parker and Pengelley, equal; Goodeve and Hooper and Kingsley, equal; Bacon and O'Leary and Watson, equal; Falcke and Hudson and Jones and Richardson (C. E.), equal; Alward; Child and Motyer and Wood (J. R.), equal; Thompson and Wilson (T. E.), equal; McLeod; McDonald (P. E.) and Ross and Stevenson and Willis (F. S.) and Wood (D. F.), equal; Boast and Clark and Koch and Planche, equal; Boyd (L. C.) and Briercliffe and Davis and Evans and Irwin, equal; Christie and Pope and Scott, equal; deGruchy and Gillies and Hargraft and Wilson (C. St. J.), equal; Forman and Philips and White (J. A. G.), equal; Cram and Fortier and Foster and Kelly and Murphy and Porter and Seath and Skelton and Young (J. B.), equal; Dibblee and Elliott and Ovalle and Smith (W. R.), equal; Forbes and Ralston, equal; Gartshore and Holland and Millican and Wood (H. W.), equal. PASSED.—Morkill

THEORY OF STRUCTURES LABORATORY.

Fourth Year.—Class I.—Jost; Colter and deHart, equal; Price. *Class II.*—Dennis and Reid (A. C.), equal; Cloran and Dowie and Stewart (R. B.), equal; Ryley and Smith and Trench and Wyman, equal; Daubney (C. B.) and Hattie and Knewstubb and Malloch and Robertson and Sproule, equal; Anderson and Cole and Scott (O. H.) and Von Pozer, equal. *Class III.*—Goodstone and Young, equal; Menzies; Cowley and Ewart and Narraway, equal; Gladman and Scovil, equal; Dakin and Goodchild and Hanson and Little and Mauer and Ryan and Stark and Thorne and Younger, equal.

MACHINE DESIGN.

Fourth Year (Electrical Engineering Course).—Class I.—McNaughton, MacAfee. *Class II.*—Boright, Ferrier; Gilchrist and Needham, equal; Sweetnam, Gill. *Class III.*—Reid (R. H.), McHenry, Gomes, Shanks, Macdonald, Kohl; Jackson and MacDiarmid, equal; Dawes and Scott (R. W.), equal; Fregeau, Vroom, Alford.

Fourth Year (Mechanical Engineering Course).—Class I.—Fisher and Magrath, equal; Stackhouse. *Class II.*—Wilson, Hollinsed; Beagley and Grahame (D. F.), equal; Lomer. *Class III.*—Blackett, Graham (H. M.); Daubney (J. E.) and Donald, equal; MacKay (G. W.), Day, MacKay (E.); Dobson and Ekers, equal; Adrian, Macrae.

Third Year.—Class I.—Linagh, Scrivener. *Class II.*—Gnaedinger and Kearney, equal; Briercliffe; Smith (W. P.) and Staveley, equal, *Class III.*—Philips, Ivey. Archibald, Falcke; Hargraft and Ovalle, equal; Gregory and Motyer, equal; Nares (H. G.), Murphy; Brotherhood and Webb, equal; Davis and Dennison and Skelton and Wilson (T. E.), equal.

MAPPING.

Third Year.—Class I.—Boast and Foster, equal; Earle. *Class II.*—Carnwath and Young (J. B.), equal; Whyte (H. E.); McLeod and Morkill and Wilson (C. St. J.), equal; Ray and Willis (G. C.), equal; McDonald (P. E.); Child and deGruchy and Underhill and Walcott, equal; Clark and Kingsley and Planche and Ross, equal; Wood (D. F.), Forbes; Nares (B. L.) and Parker, equal; Brydone-Jack and Goodeve and Kelly and O'Leary and Smith (W. R.), equal; Wilson (R, S. L.), Oliver, Bacon; Richardson (C. E.) and Watson and White (J. A. G.), equal. *Class III.*—Johnston and Woodyatt, equal; Dodd and Gillies and Holland and Murray and Willis (F. S.), equal; Collier and Galloway (J. D.) and Jones and Oughtred, equal; Forman, Thompson; Cram and Koch and Wunsch, equal; Elliott; Christie and Evans and Stevenson, equal; Anderson (A. A.) and Fortier and Hasbrouck and Seath, equal; Pope; Fraser and Hooper and Robinson, equal.

Second Year.—Class I.—DesRosiers (I.) and McGannon and Smith, equal. *Class II.*—Cummer and May and Richards, equal; Schippel, Hugh-Jones; Davis and DesRosiers (A.), equal;Norris and Peden, equal; Alexander and Hutchins and Johnson, equal; Drummond and Goode and MacDermot and McLeod (C. K.) and McRae (J. P.) and Robb and Weber, equal; Calkins and Randolph, equal; Futterer and Robertson and Roy, equal; Armstrong and Cohen (N. B.) and Gnaedinger and Tebbutt and Traversy, equal; Hadley and Kearns and Saunders and Stroud and Wilson (W. B.), equal; Angus and Boyd (T. B.) and Cassels and Fay and Jelly and McCuaig and Nichols and Reinhardt and Ryan and Sherman and Starke and Stevens and Weir and Wheatley, equal; Abbott and Barnes and Blair and Edwards and Lauder and Mallory, equal; Duggan and Macleod (D. L.) and Thomas equal; Bell (D. A. S.) and Elliott and Gass and Heward and Routledge and Sargent and Vallance, equal; Casey and Kirby and Lynch (J. A.) and McMahon and McMaster, equal; Hayward and Jordan and LaForest and Rennoldson and Veilleux, equal; Bolan and Cash and Duffield and Hall and Lefebvre and Redpath and Rolland, equal. *Class III.*—Bonyun and Hughson and Lynch (T. L.) and Pullen and Reid (A. W.), equal; Biddulph and Cooper and Gougeon and Hanington, equal; Lapp and Masson and Prince and Warburton, equal; Adam (R.) and Brown and Pain and Salter and Wilson (C.), equal; Burr and Hull and McCammon and Whittall, equal; Barnaby and Bell (W. E.) and Boyd (W. W.) and Downes and Graham (E. J.) and Ovalle, equal; Mather and Moseley, equal; Clawson and Paddon, equal; Hugessen, Turnbull, Pitts, Hetherington. PASSED.—Campbell (K. M.), Sweetnam.

MATERIALS OF CONSTRUCTION.

Second Year.—Class I.—Weir, Davis, Hayward, Schippel; McCuaig and Macleod (D. L.) and McRae (J. P.), equal. *Class II.*—McNiven; Hanington and McGannon and Tebbutt, equal; Armstrong and Boyd (W. W.) and Gass, equal; Lefebvre and McMahon, equal; Saunders; Duggan and MacDermot, equal; Barnes and Cummer and Garth and Wade, equal; Hall and Smith, equal; Jelly and Lesage and May, equal; Boyd (T. B.) and MacKinnon, equal; Cassels and DesRosiers (A.) and Heward, equal; Downes and Robertson, equal; Angus and Calkins and Cohen (N. B.) and Hadley, equal;

Robb and Stroud and Weber, equal; Hutchins and McLeod (C. K.) and Nichols and Norris and Randolph, equal; Jordan; Bagshaw and Bell (D. A. S.) and Fleming and Peden and Turnbull, equal. *Class III.*—Cohen (M. J.); Cooper and Ryan, equal; Bolan and Bonyun and Burr and Thomas, equal; Chaffey and Gnaedinger and Lauder and McCammon and Macrae (L. P.), equal; Johnson; Duffield and Hughson and McLellan and Suckling and Veilleux, equal; Cash and Fay and McGregor and McMaster, equal; Vallance, Kirby and Warburton and Wheatley, equal; Stevens; Hull and Pullen and Sherman, equal; Hugessen and Kearns and Traversy, equal; Biddulph and Lindsay and Starke, equal; Salter and Whittall and Wilson (W. B.), equal; Anderson and Casey and Gougeon and Mather, equal; Rennoldson and Sargent, equal; Redpath; Abbott and Edwards and Gohier and Graham (E. J.) and LaForest and Lapp and Masson and Prince and Reinhardt and Woodyatt, equal.

MATHEMATICS.

CALCULUS.

Third Year.—Class I.—Linagh, Gregory. *Class II.*—Archibald; Ovalle and Scrivener and Smith (W. P.), equal; Murphy; Dennison and Falcke, equal; Motyer, Ivey, Wilson (T. E.). *Class III.*—Nares (H. G.), Kearney; Alward and Staveley, equal.

MECHANICS.

Third Year.—Class I.—Linagh; Gregory and Scrivener, equal; Earle, Motyer. *Class* II,—Morkill, Whyte (H. E.), Pengelley; Ivey and Murray and Robinson, equal; Falcke and Watson, equal; Carnwath and Willis (G. C.), equal; Kearney, Parker; Dennison and Jones and Philips and Wood (D. F.), equal; Gnaedinger and Wilson (T. E.), equal; Hargraft and Irwin and Staveley, equal; Brotherhood; Archibald and Wilson (R. S. L.), equal. *Class III.*—Wood (H. W.); Alward and Child and Smith (W. P.), equal; Briercliffe and Foster and O'Leary and Wilson (C. St. J.), equal; Dodd and Elliott and Evans and Murphy, equal; Galloway (J. D.) and Hooper and Underhill and Walker, equal; Davis and deGruchy and Johnston and Ovalle and Planche and Walcott, equal; Nares (H. G.); Collier and Richardson (C. E.) and Webb, equal; Bacon and Kelly and Ray, equal; Boast and Holland, equal; Clark and Hudson and Oughtred and Ross, equal; Brydone-Jack and Eldridge, equal; Cram and Pope and Thompson and Wunsch, equal; Boyd (L. C.) and Fox and Nares (B. L.), equal; Fraser; Anderson (A. A.) and Connolley, equal; Goodeve.

ANALYTICAL GEOMETRY.

Second Year.—Class I.—Weir, Davis, Peden; Macleod (D. L.) and Tebbutt, equal; Hayward, DesRosiers (A.), Cohen (M. J.), Norris; Duggan and Hutchins, equal. *Class II.*—Hyman; Ryan and Skelton (R.), equal; McNiven, Jelly, Stroud, Barnes and Burr and Clark, equal; McGannon; Randolph and Veilleux, equal; Gass; May and Whittall, equal; Calkins and Futterer, equal; Heward and Robertson, equal; Brown and MacDermot, equal; Bagshaw and MacKinnon, equal; Cooper and Gall and Gnaedinger and Lesage and Shaw, equal.

Class III.—Gougeon and McGregor, equal; Downes and Sherman, equal; Boyd (W. W.) and Casey and Kearns and Stevens, equal; McCuaig; Edwards and Hall and Saunders and Woodyatt, equal; Abbott and Boyd (T. B.) and Kirby, equal; Cummer and Lefebvre and Macrae (L. P.) and Weber, equal; Bell (D. A. S.) and Robb, equal; Armstrong and Bolton and Fay and McDougald, equal; Turnbull and Warburton and Wheatley, equal; Hanington and Lapp, equal; Biddulph and Hugh-Jones, equal; McMahon and Masson and Schippel and Vallance, equal; Chaffey and Hadley and Lynch (J. A.) and Rennoldson, equal; Rolland and Scott, equal; Austin and Cassels and Dixon and Elliott and Garth and Graham (E. J.) and Hugessen and Hughson and Johnston and McCammon and McRae (J. P.) and Mallory (G. E. L.) and Mather and Paddon and Prince and Pullen and Routledge and Salter and Skelton (P. H.) and Stark, equal.

CALCULUS.

Second Year.—Class I.—McLeod (D. L.), Weir, Norris, Randolph; Davis and DesRosiers (A.) and Gass and Hayward and Peden, equal; *Class II.*—Stroud, Tebbutt, Heward; Jelly and Ryan, equal; Hutchins; Boyd (W. W.) and Duggan and Skelton (R.), equal; Barnes and Brown and Calkins and Hall and Hyman and Lesage and MacDermot and May and Robertson and Shaw, equal. *Class III.*—Cohen (M. J.) Garth; Boyd (T. B.) and Irwin, equal; Beauvais and Bolton, equal; Schippel and Weber, equal; Biddulph and McGannon and Whittall, equal; Hugh-Jones and Lefebvre and McNiven and Wheatley, equal; Bell (D. A. S.); Fay and Robb, equal; Cummer; Kearns and Reinhardt, equal; Cooper and Traversy, equal; Burr and Goode and Rolland and Vallance, equal; Johnson and Lapp and Prince and Roy, equal; Bagshaw and Casey and Clarke, equal; Lynch (J. A.) and McDougald and McMahon and Salter and Woodyatt, equal; Armstrong and Downes and Futterer and Gohier and Kirby and McCammon and McCuaig and McLellan and McRae (J. P.) and Rennoldson and Sherman and Warburton, equal.

MECHANICS.

Second Year.—Class I.—McLeod (D. L.), Tebbutt, Duggan; Norris and Randolph, equal. *Class II.*—Davis and Hayward, equal; Weir, DesRosiers (A.), Robertson; Boyd (T. B.) and Hugh-Jones and Shaw and Whittall, equal; Bagshaw and Ryan, equal; Jelly; Cassels and Hall and Hyman and May, equal; Armstrong and Cohen (M. J.), equal; McLellan and Stroud, equal. *Class III.* — Fay and Gass and Paddon and Rolland, equal; MacKinnon and Skelton (R.), equal; Boyd (W. W.) and Hutchins and Kirby and Peden and Schippel and Vallance, equal; Calkins and Edwards and Heward, equal; Hugessen and Turnbull, equal; Barnes and Casey and Hanington, equal; Burr and Saunders, equal; Gall; McGregor and McMaster, equal; Beauvais and Cooper and McNiven, equal; Kearns; Bell (D. A. S.) and Chaffey and Wade, equal; Clark and McGannon and Reinhardt and Wheatley, equal; Lefebvre and Mackintosh and Sherman and Woodyatt, equal; Austin and Masson, equal; Cash and Demers and McDougald, equal; Cummer and Fleming and Lesage and McMahon and Veilleux, equal; Darling and Matheson, equal; Abbott and Brown and Dixon and Garth and Gohier and McCammon and MacDermot and McRae (J. P.) and Robb and Salter and Traversy and Warburton, equal. PASSED. —Futterer.

ALGEBRA.

First Year.—Class I.—Crewdson, Murphy, Reeder, Chave, Lyche. *Class II.*—Berry and Wright (W. G.) equal; Mais, Hamer; Baily and MacRae (W. A.) equal; Joseph; Lindsay and Mitchell (W. G.), equal; Eaton, Davidson (D. A. L.), Murray, Gordon; Burrow and Gomez and Jaques and Kirby, equal ; Kavanagh and Macaulay, equal ; Burnett and Chambers and Eardley - Wilmot and Fitzgerald and Gilchrist, equal. *Class III.*—Carson; Crossfield and Hooper and Tothill, equal; Warwick and Wilson (W. J.), equal; Baker and Dempster, equal;Armytage; Harvey and Leach and Morrow and Pontbriand and Tett, equal; Skeete, Pullen; Egerton and Goodwin and McDonald (L. M.) and Macdonald (N. M.), equal; Lyster and McRae, (J. G.), and Tait, equal; Silver and Taylor, equal; Davies and Dougall and McEvenue and Roche, equal; Brisbane and Learned and Martin and Sawers, equal; Webb; Boire and Eliasoph and Hebden and Wilson (C. P.), equal; Ekers and Pain and Thompson, equal; Bell (W. E.) and Cloran and Doyon and Duval (L. M.) and Grafftey and Hample and Hanley and Lynch (T. L.) and McCaghey and Moseley and Paterson and Roy and Savage and Wood, equal.

DYNAMICS.

First Year.—Class I.—Crewdson, Murphy; MacRae (W. A.) and Reeder, equal. *Class II.*—Chave; Baily and Eaton, equal; Mais, Tothill, Wright (W. G.), Jaques; Lyche and Mitchell (W. G.), equal; Burrow and Chambers and Davidson (D. A. L.) and Egerton and Hamer and Joseph and Lindsay and Lyster and Mifflen, equal. *Class III.*—Creighton and O'Brien (C.), equal; Eardley-Wilmot and Fitzgerald and Gordon, equal; Taylor, Berry; Carson and Kirby, equal; Armytage and Burnett, equal; Baridon and Morrow and Stone, equal; Leach, Tait; Baker and Goodwin and Silver, equal; Murray and Paterson and Underhill, equal; Gilchrist and Gomez and Hooper and Martin and Tett, equal; Davies and McRae (J. G.) and Wood, equal; Price; Alexander (E. D.) and Alexander (W. B.) and Berrill and Cloran and Cooke and Crossfield and Dempster and Hample and Hanley and Harrison and Harvey and Kavanagh and Learned and Macaulay and McBeath and McDonald (L. M.) and Macdonald (N. M.) and McEvenue and Skeete and Thompson and Warwick and Webb and Wilson (C.P.), equal.

GEOMETRY.

First Year.—Class I.—Murphy, Crewdson, Mais, Dodd, Reeder, Wright (W. G.); Baily and Eardley-Wilmot and MacRae (W. A.) and Tothill, equal. *Class II.*—Jaques and Lindsay and Lyster and Mitchell (W. G.), equal; Lyche, Chave; Berry and Silver, equal; Tait; Egerton and Kirby, equal; Brisbane; Pain and Roche and Skeete and Wilson (W. J.), equal; Gordon and Pickel and Warwick, equal; Chambers; Carson and Hamer and Price, equal; Dempster; Burrow and Coombes and Davies and Fyles, equal. *Class III.*—Eaton and Harvey and Hebden and Lynch (T. L.), equal; Baker and Fitzgerald and Wood (J. A.), equal; Burnett and Davidson (C. G.) and Leach and Peters, equal; Doyon and Hanley and Joseph and LaForest and McCaghey and Macdonald (N. M.), equal; Ekers and Gomez and Martin and Moseley, equal; Alexander (E. D.)

and Macaulay and Mathewson and Morrow, equal; Clawson and Graham (J.) and Hooper and Murray and Wilson (C. P.), equal; Adam (J. A.) and Harrison and Kavanagh and Patterson and Ryan, equal; Draper and Gilchrist and Painter, equal; Learned and Savage and Sherman, equal; Baridon and Crossfield and Goodwin and McDonald (L. M.) and Tett, equal; Armytage; Bauset and Dalton and McEvenue and Stone and Thompson and Webb, equal; McBeath and Pontbriand and Taylor and Skelton (P. H.), equal; Bell (W. E.) and Davidson (D. A. L.) and Sawers, equal; Adam (R.) and Bignell, equal; Alexander (W. B.) and Dixon and O'Brien (C.) and Traversy, equal; Brown and Calder and Creighton and Grafftey and Ingram and Lovell and Ludington and McRae (J. P.) and O'Donnell, equal.

TRIGONOMETRY.

First Year.—Class I.—Murphy, Crewdson; MacRae (W. A.) and Reeder, equal; Chave, Lindsay, Berry; *Class II.*—Gordon, Gilchrist; Burrow, and Chambers, equal; Mais; Fitzgerald and Mitchell (W. G.), equal; Lyche; Baily and Carson and Eaton and Wilson (W. J.), equal; Davies and Wright (W. G.), equal; Crossfield; Egerton and Joseph and Warwick, equal; Murray and Price, equal; Dempster and Eardley-Wilmot and Harvey and Kirkpatrick and Tait, equal. *Class III.*—Macaulay and McRae (J. G.) and Skeete and Wood, equal; Hamer and Tothill, equal; Baker and Webb, equal; Armytage and Thompson, equal; Alexander (W. B.) and Lyster and Morton and Tett, equal; Eliasoph and Kirby and Morrow and Silver, equal; Mifflen and Wilson (C. P.), equal; Pickel; Burnett and Jaques, equal; Taylor, Gomez and McDonald (N. M.) and Pontbriand and Underhill, equal; Hanley, Leach, Brisbane; Bignell and Boire and Cloran and Davidson (D. A. L.) and Dougall and Draper and Hample and Hebden and Kavanagh and Learned and McBeath and McCaghey and McDonald (L. M.) and McEvenue and Martin and Patterson and Roy, equal.

MECHANICAL DRAWING.

Third Year.—(Electrical Engineering Course).—Class I.—Scrivener, Hudson. *Class II.*—Pengelley, Gregory; Ivey and Kearney; equal; Smith (W. P.), Archibald, Nares (H. G.), Millican. *Class III.*—Motyer, Dibblee; Davis and Philips, equal; Dixon and Gall, equal; Wilson (T. E.); Murphy and Ralston, equal; Alward and Falcke, equal; Dennison, Darling.

Third Year.—(Mechanical Engineering Course).—Class I.—Briercliffe, Skelton. *Class II.*—Linagh, Scott, Brotherhood, Gnaedinger, Webb *Class III.*—Garth, Campbell (C).

Second Year.—Class I.—Schippel, Abbott, Saunders, MacDermot; Futterer and Ryan, equal; Hadley, Calkins, Stroud. *Class II.*—Tebbutt, Randolph, Barnes; Cummer and Weber and Wheatley, equal; Peden, Boyd (T. B.); Gass and Norris and Robb, equal; Cash; Armstrong and Hayward, equal; May, Adam (J. A.); Heward and Robertson, equal; Casey and Davis and Gnaedinger and Weir, equal; *Class III.*—McRae (J. P.); Hugh-Jones and Hutchins, equal; Downes and Goode and Lauder and Salter and Starke, equal; Prince and Traversy and Whittall, equal; Drummond and Duggan and Hughson and Kearns, equal; Brown and Rolland and Sargent, equal; Graham (E. J.) and Wilson (W. B.), equal; Boyd

(W W.) and Jelly and Johnson and Lefebvre and MacLeod (D. L.) and Masson, equal; Hanington and Mather, equal; Cooper and Edwards and Reinhardt and Sherman and Veilleux, equal; Bolan and DesRosiers (A.) and Gougeon and Hall, equal; Cohen (N. B.) and McGannon, equal; Bell (D. A. S.); Hull and Nichols and Paddon and Pullen, equal; Lynch (J. A.) and McLeod C. K., equal; La-Forest; Burr and Fay and Hetherington and Rennoldson and Routledge, equal.

First Year.—Class I.—Reeder; Kirby and Skeete, equal. *Class II.*—Boire, Baily; Chambers and Crewdson and Kirkpatrick and Mais, equal; Cooke and MacRae (W. A.), equal; Couture and Harvey and Hebden, equal; Bauset; Berrill and Tothill, equal; Mitchell (W. G.); Berry and Murphy, equal; Brisbane, Gordon. *Class III.*—Eardley-Wilmot and Eaton and Tait, equal; Bignell and Gilchrist and McLeay and Pickel, equal; Lindsay and Moseley, equal; Learned and Wright (W. G.), equal; Fitzgerald and Joseph and Roy and Webb and Wilson (W. J.), equal; Doyon and Eliasoph and Thompson, equal; Harris and Morrow and Wood, equal; Davidson (C. G.) and McLean and Wilson (C. P.), equal; Dalton and Dodd and Grafftey and Hample, equal; Macaulay and Paterson and Ryan and Taylor and Warwick, equal; Baridon and Egerton and Hamer, equal; Davies and Dempster and Finley and Lyster and McCuaig and Murray, equal; Burrow and Cloran and Leach and McDonald (L. M.) and Raymond and Savage, equal; Martin; Buckman and Jaques and Mathewson, equal; Dougall and Ludington and McBeath and Mitchell (L. S.) and Monat and Tett, equal; Hanley and Mifflen, equal; Alexander (W. B.) and Davidson (D. A. L.) and Drummond and McCaghey and Pontbriand, equal; Clawson and Ekers and Kavanagh and Roche, equal; Ashby and Calder and Crossfield and Duval (L. M.) and Hooper, equal.

MECHANICAL ENGINEERING.

Fourth Year.—(Mechanical Engineering Course).—Class I.—Magrath and Fisher, equal. *Class II.*—Dobson, Stackhouse, Adrian, Beagley; Donald and Wilson, equal; Blackett and Daubney (J. E.), equal. *Class III.*—Cook and Grahame (D. F.), equal; Day, Buttenshaw, Ekers, Lomer, Graham (H. M.), Hollinsed, MacKay (G. W.), MacKay (E.).

Third Year.—(Civil, Electrical and Mining Engineering Courses).—Class I.—Staveley, Scrivener, Willis (G. C.); Campbell (W. B.) and Kearney and Wunsch, equal; Earle, Bacon. *Class II.*—Gregory, Eldridge, Ross, Wilson (T. E.), Ivey; Oughtred and Ray (H. P.), equal; Carnwath; Dodd and Smith (W. P.), equal; Ovalle, Nares (B. L.), Walker; Gillies and Motyer, equal. *Class III.*—Brydone-Jack; Boyd (L. C.) and Murphy, equal; Anderson (A. A.), Dennison, Galloway (J. D.); Archibald and de Gruchy, equal; Foster and Stevenson, equal; Wilson (R. S. L.), Hooper; Child and Falcke and Pope and Underhill, equal; Wood (J. R.), Boast; Johnston and Wood (D. F.), equal; Murray and Willis (F. S.) and Young (J. B.), equal; Kelly; Evans and O'Leary and Parker and Philips, equal; Planche; Collier and Davis and Elliott and Fortier and Hudson and Irwin and Koch and Millican and Nares (H. G.) and Pengelley and Richardson (C. E.) and Thompson and Watson and Wilson (C. St. J.), equal.

Third Year.—(Mechanical Engineering Course.)—Class I.—Linagh. *Class II.*—Gnaedinger, Hargraft. *Class III.*—Webb, Briercliffe, Skelton, Scott, Brotherhood, Campbell (C.).

MECHANICS OF MACHINES.

Fourth Year.—*Class I.*—Magrath, Fisher. *Class II.*—Stackhouse, Daubney (J. E.), Grahame (D. F.), Wilson, Beagley, Dobson, Macrae; Adrian and Cook, equal; Donald, MacKay (E.). *Class III.*—Hollinsed, Ekers, Blackett, Graham (H. M.), Buttenshaw.

Third Year.—*Class I.*—Linagh, Scrivener, *Class II.*—Staveley, Briercliffe; Gnaedinger and Kearney, equal; Hargraft, Motyer; Dennison and Murphy, equal; Archibald and Irwin and Ivey, equal; Gregory. *Class III.*—Falcke; Scott and Smith (W. P.), equal; Pengelley; Brotherhood and Philips, equal; Dibblee and Nares (H. G.), equal Skelton (P. H.); Millican and Wilson (T. E.) and Wood (H. W.) equal; Darling and Ovalle and Webb, equal; Alward and Davis and Hudson, equal.

Second Year.—*Class I.*—Tebbutt; Calkins and Macleod (D. L.) and Norris, equal; Garth; Davis and Hutchins, equal; Schippel and Stroud, equal; Jelly and McRae (J. P.) and Weir, equal; Boyd (W. W.) and Duggan and Hayward and Robb, equal. *Class II.*—Smith; Heward and Peden and Randolph and Ryan, equal; Barnes, DesRosiers (A.)., Boyd (T. B.) and Roy, equal; Armstrong and Nichols, equal; Cummer, Johnson, McNiven, Traversy, Cohen (M. J.); Goode and Warburton and Woodyatt, equal. *Class III.*—Cash; Gnaedinger and Gohier and Robertson and Veilleux, equal; Bagshaw and Gass and Kearns and McLellan, equal; Brown and Casey and Wade, equal; Bell (D. A. S.) and Kirby and Lefebvre and Lesage and MacDermot and MacKinnon and Paddon and Reinhardt and Weber and Wheatley, equal; Burr and Fay and Hanington, equal; Bolton and Cohen (N. B.) and May and Prince and Rolland, equal; Cooper and Lynch (J. A.) and McMahon and Salter and Whittall, equal; Hugh-Jones; Angus and Dixon and Downes and Hughson and Redpath and Saunders and Starke, equal; Irwin and Lauder and McMaster, equal; Chaffey and Hugessen and Mather and Thomas and Vallance, equal; Bolan and Demers and Edwards and McGregor and Masson and Ralston, equal; Beauvais and Biddulph and Bonyun and Cassels and Gall, equal; Graham (E. J.) and McGannon, equal; McCammon, Lindsay, Matheson; Anderson, and Fleming and Hadley and Lapp and Mallory and Sargent and Sherman, equal. PASSED.—Futterer.

METALLURGY.

Fourth Year.—(*Metallurgy*) *Course.*—*Class I.*—Williams. *Class II.*—None. *Class III.*—LaForest.

Fourth Year.—(*General*).—*Class I.*—McLean; Ayer and Cowles, equal; Cox and Gibbins, equal. *Class II.*—Gillies, Rutherford; Brown, and Elkins and Strong, equal; Burland, Pearce, Archibald, Williams, Macfarlane; Bregent and Simpson, equal. *Class III.*—Brunton and Fowler and Haultain, equal; Stuart (A. G.), Maltby, Meek. PASSED—LaForest.

Third Year.—*Class I.*—Eldridge and Galloway (J. D.) and Wunsch, equal; *Class II.*—Ross, Walker, Boyd (L. C.). *Class III.*—Oughtred, Stevenson; Macaulay and Murray, equal; Galloway (C. C.), Evans; Gartshore and Koch, equal; Hasbrouck and Lipsey and Robinson, equal.

METALLURGICAL CALCULATIONS.

Third Year.—Class I.—None. *Class II.*—Eldridge. *Class III.*—Cummins.

MINERALOGY.

Third Year.—Class I.—Galloway (J. D.), Eldridge, Murray. *Class II.*—Macaulay; Boyd (L. C.) and Oughtred, equal; Walker, Holland, Evans. *Class III.*—Porter; Fortier and Ross, equal; Jones, Koch; Stevenson and Willis (F. S.), equal; Galloway (C. C.) and Gillies, equal; Cummins, Roy, Flewin.

MINING ENGINEERING.

Fourth Year.—Class I.—Cowles, Gillies, Cox, Elkins. *Class II.*—Gibbins, Archibald, Fowler, Simpson, Ayer; Brunton and Strong, equal; Burland, Macfarlane, Brown, McLean, Bregent; Meek and Rutherford, equal. *Class III.*—Maltby, Morison; Fox and Pearce, equal; Haultain, Stuart (A. G.).

MINING MACHINERY AND DESIGN.

Fourth Year.—Class I.—Cowles and Gillies, equal; Brown and Burland, equal. *Class II.*—Ayer and Gibbins and McLean, equal; Archibald and Rutherford, equal; Fowler and Simpson, equal; Brunton and Cox, equal; Fox and Maltby, equal; Elkins and Meek and Stuart (A. G.), equal. *Class III.*—Haultain and Pearce and Strong, equal; Bregent and Macfarlane and Morison, equal; Buisson.

MINING FIELDWORK.

Fourth Year.—Class I.—Burland and McLean, equal. *Class II.*—Brown, Cox, Gibbins; Cowles and Gillies, equal; Archibald and Ayer, equal; Brunton; Elkins and Fowler and Simpson, equal; Fox and Macfarlane and Pearce, equal. *Class III.*—Haultain, Maltby, Bregent; Durant and Williams, equal.

MUNICIPAL ENGINEERING.

Fourth Year.—Class I.—Smith and Stewart (R. B.), equal; Jost; Cloran and Cole and Dennis, equal. *Class II.*—Trench; Cowley and Hattie, equal; deHart and Colter, equal; Anderson and Daubney (C. B.), equal; Von Pozer, Robertson; Knewstubb and Sproule, equal; Younger, Scott (O. H.); Hanson and Ewart, equal; Goodstone and Mauer and Young, equal; Menzies and Price, equal. *Class III.*—Scovil and Wyman, equal; Stark, Dakin, Malloch; Narraway and Ryley, equal; Harris (H. W.).

Third Year.—Class I.—Earle and Johnston and Willis (G. C.), equal; Bacon. *Class II.*—Underhill, Richardson (C. E.); Anderson (A. A.) and deGruchy, equal; Foster and Wilson (R. S. L.), equal; O'Leary, Dodd; Kelly and Nares (B. L.) and Wilson (C. St. J.), equal; Boast; Carnwath and Ray, equal; Brydone-Jack and Child and Collier, equal. *Class III.*—Watson, Parker, Elliott, Wood (J. R.), Wood (D. F.); Goodeve and Oliver, equal; Forman and Seath and Walcott, equal; Christie, Hooper; Fraser and McDonald (P. E.), equal.

ORE DRESSING AND MILLING.

Fourth Year.—*Class I.*—Cowles, Cox, Gillies, Brunton, Brown, Archibald. *Class II.*—Burland, Maltby; Ayer and Fowler and Gibbins, equal; Bregent; Fox and Simpson, equal. *Class III.*—Macfarlane and Rutherford, equal; Williams; McLean and Strong, equal; Pearce; Morison and Raymond, equal; Porter, Stuart (A. G.), Meek, Haultain.

Third Year.—*Class I.*—Galloway (J. D.), Wunsch. *Class II.*—Murray, Ross, Evans, Eldridge, Oughtred. *Class III.*—Koch, Gillies, Gartshore, Jones; Stevenson and Willis (F. S.), equal; Fortier and Holland, equal; Galloway (C. C.), White (J. A. G.), Buisson.

PASSENGER SERVICE.

Fourth Year.—*Class I.*—Clark, Derrom, Timberlake, Popham, McNab. *Class II.*—None. *Class III.*—None.

PHYSICAL GEOGRAPHY.

Fourth Year.—*Class I.*—Derrom. *Class II.*—McNab and Timberlake, equal. *Class III.*—Clark, Popham.

RAILWAY ECONOMICS.

Fourth Year.—*Class I.*—Clark, Slingsby. *Class II.*—McNab, Timberlake. *Class III.*—Derrom, Popham.

RAILWAY ENGINEERING.

(CIVIL ENGINEERING AND TRANSPORTATION COURSES).

Fourth Year.—*Class I.*—Younger; Clark and Slingsby, equal; Knewstubb and Timberlake, equal; Young. *Class II.*—Anderson and Smith equal; deHart; Cowley and McNab, equal; Cloran and Thorne, equal; Daubney (C. B.) and Derrom, equal; Hattie and Jost and Price, equal; Ewart; Colter and Goodstone and Mauer, equal; Cole and Stewart (R. B.), equal; Malloch and Popham, equal; Hanson. *Class III.*—Dakin and Scovil and Trench, equal; Dennis, Scott (O. H.); Duguid and Ryley, equal; Harris (H. W.); Robertson and Sproule and Starke, equal; Goodchild, Narraway, Menzies; Von Pozer and Wyman, equal.

Third Year.—*Class I.*—Morkill, Dodd, Willis (G. C.), Underhill, McLeod. *Class II.*—Earle, Carnwath, Boast; Bacon and Ray, equal; O'Leary, Brydone-Jack, Collier; Thompson and Wilson (C. St. J.) and Wilson (R. S. L.), equal; Parker, Nares (H. G.). *Class III.*—Elliott and Hooper and Johnston and Pope, equal; Smith (W. R.); Duguid and Goodeve, equal; McDonald (P. E.) and Young (J. B.), equal; Forbes and Planche, equal; deGruchy and Seath, equal; Fraser, Forman, Christie and Kelly, equal; Foster, Child; Anderson (A. A.) and Oliver, equal; Richardson (C. E.), Walcott; Cram and Kingsley, equal.

RAILWAY LAW.

Fourth Year.—*Class I.*—Clark. *Class II.*—Derrom, Popham, McNab, Timberlake. *Class III.*—None.

RAILWAY OPERATION.

Fourth Year.—*Class I.*—Derrom; McNab and Slingsby. equal; *Class II.*—Timberlake, Popham. *Class III.*—None.

RAILWAY MECHANICAL ENGINEERING.

Fourth Year.—*Class I.*—Popham, Clark, Derrom, McNab. *Class II.*—Timberlake, Slingsby. *Class III.*—None.

Third Year.—*Class I.*—McLeod, Morkill. *Class II.*—Forbes, Bolton, Kingsley. *Class III.*—None.

RAILWAL MECHANICAL ENGINEERING DRAFTING.

Fourth Year.—*Class I.*—None. *Class II.*—Clark, Timberlake, Slingsby. McNab, Derrom. *Class III.*—Popham.

SHOPWORK.

Fourth Year.—*Class I.*—Fisher, Magrath. *Class II.*—Adrian, Stackhouse, Daubney (J. E.), Macrae; Cook and Dobson, equal; Buttenshaw and Day, equal; Beagley and Blackett, equal; Donald. *Class III.*—MacKay (E.); Hollinsed and Lomer and Wilson, equal.

Third Year.—*Class I.*—Skelton, Webb; Linagh and Scott, equal; Garth and Gnaedinger, equal; Briercliffe and Brotherhood, equal. *Class II.*—Hargraft, Campbell. *Class III.*—None.

Second Year.—*Class I.*—McRae (J. P.); Mather and Schippel and Weir, equal. *Class II.*—Lefebvre; Boyd (T. B.) and Hayward and Macleod (D. L.) and Smith and Tebbutt, equal; Angus and Casey and Jelly and Saunders, equal; Davis and Lauder, equal; Cooper; Hutchins and May and Peden and Ryan, equal; Calkins and Goode and Hanington and Johnson and Norris and Wheatley, equal; Kearns and Lesage and Nichols and Traversy and Weber, equal; Biddulph and Downes and Duggan, equal; Heward and Roy and Salter and Stroud, equal; Lynch (J. A.) and McCammon and McGannon and McMahon and Rolland and Sargent, equal; Robb; Abbott and Boyd (W.W.) and Burr and Cohen (N. B.) and Reinhardt and Robertson and Starke and Vallance, equal; Hadley and Hall and Hughson and Wunsch, equal. *Class III.*—Barnes and Bell (D. A. S.) and Drummond and McLeod (C. K.), equal; Boyd (L. C.) and Brown and LaForest and Lapp, equal; MacDermot and Veilleux and Warburton and Wilson (W. B.), equal; Adam (R.) and Bolan and Fay and Gass and Redpath and Rennoldson, equal; Gougeon and Hugessen; equal; Cassels and Coombes and DesRosiers (A.) and Graham (E. J.) and Turnbull, equal; Sherman and Whittall, equal; McMaster; Cash and Hull and Prince, equal; Masson, Randolph, Reid, Cummer.

First Year.—*Class I.*—Baily and Crewdson and MacRae, equal; *Class II.*—Wright (W. G.), Chambers; Dodd and Mitchell (W. G.) and Wilson (C. P.), equal; Pickel and Lindsay and Reeder, equal; Eardley-Wilmot and Harvey and Mais and Skeete, equal; Joseph and Macaulay, equal; Baridon and Murphy and Tait, equal; Davidson (C. G.) and Hample and Leach, equal; Burrow and Learned, equal; Gilchrist and Grafftey and Jacques and Lyster and Morrow and Wood, equal; Eaton and Mifflen, equal; Bignell and Boire and Harrison and Panet-Raymond and Tett, equal; Berry and Cooke

and Harris and Kirkpatrick and Ludington and Taylor, equal; Baker and Dempster and Fitzgerald and Hebden and Martin, equal; Davies and Goodwin and McBeath and McLean and Roy and Savage, equal; Bauset and Hooper and McDonald (L. M.) and Ryan, equal; Hamer and Masson and Paterson, equal; Calder and Cloran and Davidson (D. A. L.) and Gordon and Kirby, equal. *Class III.*—Duval (L. M.) and Egerton and McCaghey and McEvenue and Wilson (W. J.), equal; Mathewson; Alexander (W. B.) and McCuaig and Thompson and Tothill, equal; Crossfield and Eliasoph and Hanley and Price, equal; Dougall and Doyon and Morton and Murray, equal; Macdonald (N. M.); Berrill and Buckman, equal; Mitchell (L. S.), Kavanagh.

SHORTHAND.

Fourth Year.—Class I.—McNab, Timberlake, Slingsby. *Class II.*—Derrom, Popham. *Class III.*—None.
Third Year.—Class I.—McLeod, Morkill, Kingsley. *Class II.*—None. *Class III.*—Forbes, Mayette.

SIGNALS.

Fourth Year.—Class I.—McNab, Timberlake. *Class II.*—Derrom, Popham Slingsby, Clark. *Class III.*—None.

STRENGTH OF MATERIALS.

Third Year.—Class I.—Scrivener, Earle, Dodd, Linagh, Galloway (J.D.), Campbell (W. B.); Gregory and Kearney, equal; Motyer and Murray and Willis (G. C.), equal. *Class II.*—Briercliffe, Staveley, Oughtred, Archibald; Wilson (C. St. J.) and Underhill, equal; Gnaedinger and Ovalle, equal; Smith (W. P.) and Walker, equal; Carnwath and Dennison and Wunsch, equal; Wilson (R. S. L.). *Class III.*—Anderson (A. A.) and Morkill, equal; Foster; deGruchy and Jones and Wood (D. F.), equal; Holland, Brotherhood; Parker and Philips, equal; Falcke and Watson, equal; Boyd (L. C.) and Goodeve and Koch and McLeod and Richardson (C. E.), equal; Ivey and Pope and Ray, equal; Ross; Hargraft and Millican, equal; Evans; Cram and Hooper and Nares (B. L.), equal; Johnston and Nares (H. G.), equal; Child and Fraser, equal; Boast and Christie and Eldridge and Kelly and Kingsley and O'Leary and Young (J. B.), equal; Collier and Forbes and Forman and Fortier and Gillies and Stevenson and Thompson and Webb and Wilson (T. E.) and Wood (J. R.), equal.

STRUCTURAL ENGINEERING.

Third Year.—Class I.—Gnaedinger; Linagh and Wilson (R. S. L.), equal; Earle, Carnwath; deGruchy and Ray, equal; Ross, Murray, Dodd; Morkill and Walker, equal. *Class II.*—Eldridge and Parker and Young (J. B.), equal; Galloway (J. D.); Briercliffe and Underhill, equal; Hooper and McLeod and Wilson (C. St. J.) and Wood (D. F.), equal; Goodeve; Bacon and Oughtred, equal; Nares (B. L.); Johnston and Pope and Willis (G. C.), equal; Forbes and Smith (W. R.), equal; Brotherhood and Evans and Watson, equal; Clark; Boyd and Child, equal; Collier and Willis (F. S.), equal. *Class III.*—Brydone-Jack and Cram and Fraser and Gartshore and

Gillies and McDonald (P. E.) and O'Leary and Walcott, equal; Anderson (A. A.) and Boast, equal; Hargraft, Kelly; Bolton and Webb, equal; Foster and Richardson (C. E.), equal; Wood (J. A.), Forman, Koch, Elliott; Skelton and Stevenson, equal; Scott and White (J. A. G.), equal; Fortier; Oliver and Planche and Thompson, equal. PASSED.—Whyte (H. E.).

SUMMER ESSAY.

Fourth Year.—(*Civil Engineering Course*).—*Class I.*—Sproule, Hattie, Openshaw. *Class II.*—Price and Scovil and Trench, equal; de Hart and Knewstubb and Smith, equal; Cole and Dennis and Malloch and Young, equal; Anderson and Harrison and Ryley and Small, equal. *Class III.*—Younger.

Fourth Year.—(*Electrical Engineering Course*).—*Class I.*—Shanks; MacDiarmid and Reid (R. H.), equal; McHenry; Fregeau and Kohl, equal. *Class II.*—Powis; MacAfee and Vroom, equal; Needham, Vinet, Alford. *Class III.*—Boright, Ferrier.

Fourth Year.—(*Mechanical Enginering Course*).—*Class I.*—Magrath, Harris (N. C.). *Class II.*—Adrian and Hollinsed, equal; Daubney (J. E.) and Fisher and Wilson, equal. *Class III.*—Beagley and Buttenshaw and Cook and Donald, equal.

Fourth Year.—(*Mining Engineering Course*).—*Class I.*—Cowles, Burland. *Class II.*—McLean, Haultain, Gillies, Gibbins, Brunton, Meek, Ayer, Bregent. *Class III.*—Maltby.

Fourth Year.—(*Transportation Course*).—*Class I.*—Derrom, Clark. *Class II.*—Timberlake, McNab. *Class III.*—None.

Third Year.—(*Civil Engineering Course*).—*Class I.*—Bacon and Pope and Willis (G. C.), equal. *Class II.*—Elliott and McDonald (P. E.), equal; Brydone-Jack and Child and Clark, equal; Underhill; Collier and Dodd and Wilson (R. S. L.), equal. *Class III.*—Bisson and Nares (B. L.), equal.

Third Year.—(*Electrical Engineering Course*).—*Class I.*—Kearney. *Class II.*—Scrivener, Hudson; Staveley and Wood (H. W.), equal. *Class III.*—Davis and Wilson (T. E.), equal.

Third Year.—(*Mechanical Engineering Course*).—*Class I.*—Briercliffe. *Class II.*—Linagh, Webb. *Class III.*—Brotherhood.

Third Year.—(*Mining Engineering Course*).—*Class I.*—None. *Class II.*—Robinson; Murray and Willis (F. S.), equal. *Class III.*—Holland; Gartshore and Koch, equal.

SUMMER READING.

Second Year.—PASSED.—Bell (D. A. S.), Boyd (T. B.), Burr, Calkins, Elliott, Futterer, Gass, Gnaedinger, Goode, Graham (E. J.), Hetherington, Heward, Hyman, MacDermot, Macleod (D. L.), McMahon, May, Norris, Peden, Randolph, Robb, Roy, Schippell, Smith, Stroud, Traversy, Veilleux, Warburton, Wilson (W. B.).

SUMMER SCHOOL.

Third Year.—(MECHANICAL DRAWING).—*Class I.*—Cushing, Briercliffe, Smith, Ivey. *Class II.*—Scrivener and Skelton (P. H.), equal; Gregory and Wilson (T. E.), equal; Archibald and deGruchy and Garth and Linagh, equal; Gnaedinger (C. W.),; Brotherhood and Murphy and Sankey and Webb, equal; Dixon and Scott, equal;

Beauvais. *Class III.*—Dennison; Irwin and Millican and Nares and Ralston and Philips, equal; Alward and Darling and Pengelley, equal; Anderson (J. R.) and Falcke, equal; Gall, Anderson (J. G.).

(PHYSICS).—*Class I.*—Scrivener; Gregory and Linagh, equal; *Class II.*—Falcke and Sankey, equal; Staveley, Archibald, deGruchy, Dennison, Ivey, Briercliffe, Gnaedinger (C. W.), Smith. *Class III.*—Pengelley and Wilson (T. E.), equal; Webb, Brotherhood, Dixon, Alward, Philips, Millican, Anderson (J. R.), Cushing, Skelton; Irwin and Nares and Scott, equal.

(SHOPWORK).—*Class I.*—None. *Class II.*—Scrivener, Staveley, Brotherhood, Gnaedinger (C. W.); Scott and Webb, equal; Ivey; Archibald and Briercliffe and Linagh and Pengelley and Sankey, equal; Campbell and deGruchy and Dixon, equal; Millican and Murphy, equal; Nares and Smith, equal. *Class III.*—Gall and Garth and Philips, equal; Anderson (J. R.) and Gregory, equal; Cushing and Dennison and Skelton and Wilson (T. E.), equal; Alward; Elliott and Falcke, equal; Beauvais; Darling and Irwin, equal.

SURVEYING.

Third Year.—(*Civil Engineering Course*).—*Class I.*—Earle. *Class II.*—Parker and Wilson (R. S. L.), equal; Dodd, Underhill; Carnwath and Willis (G. C.), equal; Johnston, Ray; Anderson and deGruchy, equal; Foster. *Class III.*—O'Leary, Wood (J. R.), Goodeve, Boast; Pope and Wilson (C. St. J.), equal; Bacon and Fraser, equal; Wood (D. F.); Collier and McDonald and Richardson and Thompson, equal; Brydone-Jack and Hooper, equal; Nares and Planche and Watson, equal; Cram and Kelly, equal; Clark, Elliott. PASSED.—Whyte.

Third Year.—(*Mining Engineering Course*).—*Class I.*—Wunsch. *Class II.*—Murray, Ross, Oughtred, Robinson. *Class III.*—Holland. Evans, Jones, Fortier; Boyd (L. C.) and Galloway (J. D.) and Gillies and Lipsey, equal.

Second Year.—*Class I.*—Davis, Duggan, Schippel, Macleod (D. L.), Gass; Stroud and Tebbutt, equal; Robertson. *Class II.*—DesRosiers (A.) and Randolph, equal; Peden, Norris, Weir, Gnaedinger; McLellan and Roy, equal; Heward and Ryan, equal; Hayward and May and Whittall, equal; McRae (J. P.); Hadley and Hugh-Jones and Jelly and McMahon and Salter, equal; DesRosiers (I.) and Lauder, equal; Boyd (W. W.) and Cummer and Edwards and Weber, equal; Hall. *Class III.*—Bonyun and Hutchins and McCuaig, equal; Calkins and McGannon and Smith, equal; Veilleux, Irwin; Barnes and Johnson and Kirby and Prince and Traversy, equal; Burr and Cooper and MacDermot, equal; Cohen (M. J.) and Hugessen and Jordan and Kearns, equal; Fay and Goode, equal; Lapp and Lefebvre, equal; McCammon and Sherman, equal; Boyd (T. B.) and McNiven and Saunders, equal; Hanington; Armstrong and Bell (D. A. S.) and Rolland and Stevens, equal; Casey and Chaffey and Warburton, equal; Barnaby and McGregor and Paddon and Pullen and Reinhardt and Richards and Thomas, equal; Bagshaw and Downes and Robb, equal; Legris and Wheatley, equal; Abbott and Brown and Gougeon and McLeod (C. K.) and Mather and Sargent, equal.

SURVEYING FIELDWORK.

Third Year.—Class I.—Wilson (R. S. L.); Earle and Ray, equal; Brydone-Jack, Underhill. *Class II.*—Morkill and Whyte (H. E.) and Wood (D. F.), equal; Thompson, Walcott; McLeod and Oughtred and Staveley, equal; Murray and Willis (G. C.), equal; Robinson and Ross, equal; Johnston and Willis (F. S.) equal; Boast and Clark and Forman and Richardson, equal; Child and deGruchy and Hasbrouck and O'Leary and Pope and White (J. A. G.), equal; Foster and Lindsay and Smith (W. R.) and Watson, equal; Fortier and Goodeve and Woodyatt, equal; Anderson and Carnwath and Collier and Forbes and Oliver and Seath, equal. *Class III.*—Beaulne and Evans and Planche, equal; Koch and McDonald (P. E.), equal; Bacon and Cram and Galloway (J. D.) and Gillies (G. A.) and Young (J. B.), equal; Dodd and Gartshore, equal; Gillies (C. C.) and Wilson (C. St. J.), equal; Boyd (L. C.), Flewin; Lipsey and McFarlane, equal; Lesage, Mallory (F. E.), Hooper, Gorman, Kingsley, Elliott, Mallory (G. E. L.).

Second Year.—Class I.—Abbott; Johnson and Norris, equal; LaForest and McRae (J. P.), equal; Smith; DesRosiers (A.) and Weir, equal; *Class II.*—Cassels and DesRosiers (I.) and Elliott, equal; Futterer, McMahon; Peden and Robb, equal; Edwards, Schippel; Hayward and Roy, equal; Armstrong and Gass and May, equal; Barnes and Hall and McGannon and Sargent, equal; Saunders and Turnbull and Weber, equal; Duggan and Hadley and Hetherington and Pullen and Randolph and Sawyer and Sherman, equal; Austin and Heward and McLeod (C. K.) and Wheatley, equal; Kirby and Mather, equal; Alexander and Blair and Boyd (T. B.) and Hughson and Rennoldson and Ryan and Salter and Stark and Vallance, equal; Angus and Davis and McCuaig and Masson, equal; Bell (D. A. S.) and Hutchins and Stroud and Whittall, equal; Casey and Kearns and McLeod (D. L.) and Reid (E. L.) and Robertson and Wright (W. E.), equal; Traversy. *Class III.*—Jelly and Lauder and Metcalfe, equal; Drummond and Hugessen and McCammon and Pitts, equal; Duffield and Lynch (T. L.), equal; Cummer and Veilleux and Warburton and Wilson (W. B.), equal; Lefebvre and Lynch (J. A.), equal; Adam (R.) and Tebbutt, equal; Burr and MacDermot and O'Brien (J. L.) and Routledge and Wilson (C.), equal; Moseley and Paddon and Richards, equal; Downes and Wunsch, equal; Graham (E. J.) and Hanington and Hull and Sweetnam, equal; Bolan and Davidson and Gougeon, equal; Bonyun and Cash and Ethier and Pain, equal; Peters and Prince, equal; McMaster; Reinhardt and Wilson (E. W.), equal; Calkins and Goode and Graham (J.) and Rolland, equal; Lapp; Biddulph and Brown and Duval, equal.

TELEGRAPHY.

Fourth Year.—Class I.—Clark, McNab. *Class II.*—Popham, Timberlake, Slingsby. *Class III.*—Derrom.

Third Year.—Class I.—Kingsley, Forbes. *Class II.*—McLeod, Bolton, Morkill, Smith (W. R.). *Class III.*—None.

THEORY OF STRUCTURES AND GRAPHIC STATICS.

Fourth Year.—Class I.—Trench, Jost, Sproule; Cloran and deHart, equal. *Class II.*—Colter and Ewart, equal; Reid (A. C.); Price and Stewart

(R. B.), equal; Younger, Cowley; Dowie and Smith, equal; Von Pozer; Dennis and Scott (O. H.), equal; Goodstone and Malloch, equal; Cole, Ryley, Robertson, Hattie. *Class III.*—Daubney (C. B.), Narraway, Anderson, Ryan, Young; Knewstubb and Wyman, equal; Menzies and Stark, equal; Gladman and Little, equal; Scovil, Dakin, Hanson.

THERMODYNAMICS.

Fourth Year (*Electrical Engineering Course*).—*Class I.*—MacAfee, Gilchrist, Boright. *Class II.*—Gill, Kohl, McHenry, Fregeau; Ferrier and McNaughton, equal. *Class III.*—Needham, Reid (R. H.), Alford; Jackson and Vroom, equal; MacDiarmid; Macdonald and Powis, equal.

Fourth Year (*Mechanical Engineering Course*).—*Class I.*—Magrath, Adrian, Stackhouse; Beagley and Fisher, equal. *Class II.*—Wilson, Donald. *Class III.*—Grahame (D. F.), Lomer, Cook; Blackett and Day, equal; Hollinsed; Dobson and Graham (H. M.), equal; Daubney (J. E.) and Ekers, equal.

Third Year.—*Class I.*—Linagh. *Class II.*—Briercliffe, Gnaedinger. *Class III.*—Hargraft.

McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

STANDING IN DRAWING, LABORATORIES AND SHOPWORK

CHEMISTRY.

Second Year.—*Class I.*—None. *Class II.*—None. *Class III.*—Wade; MacKinnon and McNiven, equal; Cohen, Bagshaw; McGregor and Macrae, equal.

FREEHAND DRAWING AND LETTERING.

First Year.—*Class I.*—Stone. *Class II.*—Creighton; Chave and Lyche. equal; McRae (J. G.), Hughes, Draper, Armytage. *Class III.*—Bell-Irving (R.), Sawers, Carson; Burnett and O'Brien, equal; Fisher.

LABORATORIES.

CHEMICAL LABORATORY.

Second Year.—*Class I.*—None. *Class II.*—MacKinnon, Wade, McNiven, Fleming. *Class III.*—Underhill, Chaffey; Bagshaw and Irwin, equal; McGregor, Macrae, Cohen, Scott.

PHYSICAL LABORATORY.

Second Year.—*Class I.*—Bagshaw, Cohen. *Class II.*—Wade, MacKinnon, Fleming, McLellan, Scott, McNiven, McGregor, Macrae (L. P.), Chaffey. *Class III.*—None.

First Year.—Class I.—Chave. *Class II.*—Lyche, Creighton, Carson, Armytage, Draper, O'Brien; McRae (J. G.) and Stone, equal. *Class III.*—Hughes, Burnett, Sawers, Fisher, Bell-Irving (R.).

MAPPING.

Second Year.—Class I.—None. *Class II.*—Fleming; Cohen and McNiven, equal; Scott, McGregor, Chaffey, Wade. *Class III.*—Irwin, McLellan, Underhill.

MECHANICAL DRAWING.

Second Year.—Class I.—Underhill. *Class II.*—Chaffey, McNiven, McLellan, Bagshaw, Wade. *Class III.*—Cohen and Macrae (L. P.), equal; Fleming, McGregor, MacKinnon.

First Year.—Class I.—Creighton. *Class II.*—Carson, Chave, Draper, Armytage, Stone. *Class III.*—Lyche, Hughes, McRae (J. G.), Sawers, O'Brien; Bell-Irving (R.) and Burnett, equal.

SHOPWORK.

Second Year.—Class I.—None. *Class II.*—McNiven, Wade, Bagshaw, Underhill; Chaffey and McLellan, equal; Cohen. *Class III.*—Fleming, Irwin, Macrae (L. P.), Scott, McGregor.

First Year.—Class I.—Carson. *Class II.*—Hughes, Chave; Creighton and Lyche, equal. *Class III.*—Bell-Irving (R.), Burnett; O'Brien and Stone, equal; Fisher and McRae (J. G.) and Sawers, equal; Armytage and Draper, equal.

SURVEYING FIELDWORK.

Second Year.—Class I.—McNiven. *Class II.*—Bagshaw and Macrae (L. P.), equal; McLellan, Chaffey, Underhill, Cohen, Wade. *Class III.*—McGregor, Fleming.

McGill University.

SESSIONAL EXAMINATIONS, 1909-1910.

Faculty of Law.

THIRD YEAR (GRADUATING CLASS)

HONOURS.

(In order of merit.)

Heward, C. G., B.A., First Rank Honours, Elizabeth Torrance Gold Medal and Samuel Massey Scholarship.
Penny, E. Goff T., B.A., First Rank Honours and Alexander Morris Scholarship.
Tulk, A. E., First Rank Honours.
Cousins, G. V., M.A., and MacCallum, O. B., B.A., (Equal)—First Rank Honours.

PASSED FOR THE DEGREE OF B.C.L.

(In order of merit.)

Heward, C. G., B.A.
Penny, E. Goff T., B.A.
Tulk, A. E.
Cousins, G. V., M.A. } Equal.
MacCallum, O. B., B.A. }
Jamieson, J. S., M.A.
Goodstone, I. A.
Tetreau, M., B.L.
Cameron, A. G.
Alexander, M., B.A.
Cushing, D., B.A.

In addition to the above the following candidates have passed all the examinations for the Degree:

Belanger, G., B.A.
Millman, L.
Papineau, T. M., B.A.

SECOND YEAR.

HONOURS.

Archibald, K., B.A., First Rank General Standing and Scholarship of $100.00.
Hastings, W. R., B.A. } Equal—First Rank General Standing and
Waterston, E. J., B.A. } Scholarship of $75.00 each.
Fitch, L., B.A. } Equal—First Rank General Standing.
Fleet, A. R., B.A. }
Shanks, W. R. L., B.A., First Rank General Standing.
Macdonald, J., and Burnett, R., Second Rank General Standing.

PASSED IN THE SECOND YEAR.

(In order of merit.)

Archibald, K., B.A.
Hastings, W. R., B.A. } Equal.
Waterston, E. J., B.A. }
Fitch, L., B.A. } Equal.
Fleet, C. A. R., B.A. }
Shanks, W. R. L., B.A.
Maedonald, J., M.A.
Burnett, R.
Merrill, W. A.
Stockwell, R. F., B.A.
Walsh, J. C.
Creswell, H. J., B.A.
Fisher, W. C.
Nicholson, D. N.

FIRST YEAR.

HONOURS.

Scott, W. B., First Rank General Standing and Scholarship of $100.00.
Pedley, H. S., First Rank General Standing and Scholarship of $75.00.
Fisher, R. E. } Equal—First Rank General Standing.
Plimsoll, A. R. W. }
Hale, C. A.; Lajoie, H. G.; Mingie, G. W.—Second Rank General Standing

PASSED IN THE FIRST YEAR.

Scott, W. B.
Pedley, H. S., B.A.
Fisher, R. E., B.A. } Equal.
Plimsoll, A. W. R., B.A. }
Hale, C. A., B.A.
Lajoie, H. Gerin.
Mingie, G. W., M.A.
LeMesurier, C. S., B.A.
Sinclair, R. V. C.
McMahon, E. G.,
Lepine, W. H. E.
Boulanger, J. O. L.
Engel, J. A.
Lipsey, R. H.
Burke, M. T.
Marcus, M.
Angers, A. G.
Lavery, S.

STANDING IN THE SEVERAL SUBJECTS.

THIRD YEAR.

(In order of merit.)

CRIMINAL LAW.

Penny, Heward, Tulk, MacCallum, Jamieson, Cousins, Jacobs, Tetreau, Goodstone, Alexander, Cushing, Cameron, Belanger (æg.).

COMMERCIAL LAW.

Heward, Jamieson, Tulk, MacCallum, Cousins, Penny, Goodstone, Belanger, Cameron, Tetreau, Cushing, Alexander.

GIFTS, WILLS AND SUCCESSIONS

Heward, Penny, MacCallum, Goodstone, Cameron, Cousins, Tulk, Tetreau, Belanger, Jamieson, Jacobs, Cushing, Alexander.

MARRIAGE COVENANTS, ETC.

Heward, Penny, Tulk, Belanger, MacCallum; Cousins and Jamieson, equal; Cameron, Cushing; Goodstone and Tetreau (equal); Alexander, Jacobs (æg.).

OBLIGATIONS.

Penny, Heward, Tulk, Jamieson, Belanger, Cousins, Jacobs, MacCallum, Goodstone; Cameron and Alexander, equal; Cushing, Tetreau.

ROMAN LAW.

Penny, Heward, Cousins, Tulk, MacCallum, Jacobs, Goodstone, Jamieson, Tetreau, Belanger, Cameron, Cushing, Alexander.

CONSTITUTIONAL LAW.

Heward, Penny, Jacobs; Tulk and Cousins and MacCallum, equal; Goodstone, Tetreau, Alexander, Belanger, Cameron, Jamieson, Cushing.

PARTNERSHIP AND CORPORATIONS.

Penny, Cousins, Heward, Tulk, Jamieson, Jacobs, MacCallum, Alexander, Tetreau, Cushing.

EVIDENCE.

Heward; MacCallum and Penny, equal; Tulk, Cousins, Jamieson, Jacobs, Alexander and Belanger, equal; Tetreau; Cushing and Goodstone, equal; Cameron.

REAL PROPERTY LAW.

Heward, Penny, Cousins, Goodstone, MacCallum, Jacobs, Tetreau; Alexander and Belanger, equal; Jamieson and Tulk, equal; Cameron, Cushing.

SECOND YEAR.

(In order of merit.)

CRIMINAL LAW.

Archibald, Hastings, Waterston; Fleet and Merrill, equal; Stockwell; Burnett and Fitch, equal; Macdonald; Fisher and Creswell, equal; Shanks, Walsh, Nicholson.

COMMERCIAL LAW.

Waterston, Fleet, Shanks, Hastings; Macdonald and Fitch, equal; Archibald, Merrill, Walsh, Burnett; Creswell and Owens, equal; Stockwell and Goldenberg, equal; Fisher, Nicholson.

SUCCESSIONS.

Hastings; Waterston and Archibald, equal; Burnett and Owens, equal; Fitch, Shanks, Nicholson; Fisher and Walsh and Stockwell and Macdonald, equal; Merrill, Fleet, Goldenberg, Creswell.

MARRIAGE COVENANTS, ETC.

Burnett; Archibald and Shanks, equal; Hastings, Fleet; Walsh and Waterston, equal; Creswell and Fitch, equal; Nicholson; Stockwell and Owens, equal; Merrill and Macdonald, equal; Fisher, Goldenberg.

AGENCY AND PARTNERSHIP.

Hastings, Fleet; Waterston and Shanks, equal; Fitch, Nicholson, Archibald, Merrill, Walsh, Macdonald, Fisher, Burnett, Owens; Creswell and Goldenberg, equal; Stockwell.

EVIDENCE.

Fleet and Shanks, equal; Archibald and Hastings, equal; Waterston, Stockwell, Fisher, Goldenberg, Fitch, Macdonald, Owens; Merrill and Nicholson, equal; Walsh, Burnett, Creswell.

REAL PROPERTY LAW.

Waterston, Hastings, Shanks; Creswell and Archibald, equal; Fisher and Stockwell, equal; Fleet; Fitch and Macdonald and Walsh, equal; Merrill, Goldenberg; Burnett and Nicholson, equal; Owens.

OBLIGATIONS.

Fitch, Archibald; Fleet, Stockwell, Macdonald, Shanks, Hastings; Owens and Waterston, equal; Burnett and Creswell, equal; Merrill, Walsh, Fisher, Nicholson, Goldenberg.

FIRST YEAR.

(In order of merit.)

CONSTITUTIONAL LAW.

Scott, Pedley, Plimsoll, Fisher, Lajoie, Lemesurier, Mingie, Sinclair, Hale, McMahon, Lepine, Engel, Boulanger, Marcus, Burke, Lavery, Lafontaine, Lipsey.

LEGAL HISTORY.

Plimsoll, Scott, Pedley, Lajoie, Hale, McMahon, Sinclair, Mingie, Lemesurier, Fisher, Lipsey, Engel, Boulanger, Lepine, Angers, Burke.

OBLIGATIONS.

Scott, Plimsoll, Fisher, Hale, Lajoie, Mingie, Sinclair, Boulanger, Marcus, Cohen, Burke, Lepine, Lavery.

PERSONS.

Hale; Scott and Mingie, equal; Lepine and Pedley, equal; McMahon, Lajoie, Fisher, Sinclair, Lipsey, Plimsoll, Cohen, Lavery; Boulanger and Marcus and Lemesurier and Handfield, equal.

ROMAN LAW.

Scott, Lajoie, Pedley, Plimsoll, Fisher, Hale, Sinclair, Mingie, Lemesurier, Engel, Lepine, McMahon, Burke, Lipsey, Marcus, Boulanger, Angers, Lavery.

REAL PROPERTY LAW.

Pedley, Mingie, Hale, Scott, Fisher, Lemesurier, Lajoie, Plimsoll, Sinclair, Boulanger, Lepine, Engel, Angers, McMahon, Lipsey, Burke.

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